FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

NOVEMBER, 1951

Chicago Stages Air Raid Drill as Part of Fire Prevention Day Program (Details Elsewhere in This Issue)

A CASE · SHEPPERD · MANN PUBLICATION

For FIRST AID *in breathing emergencies*

INhalation

EXhalation

Write for free bulletin on the Emerson Method of Artificial Respiration

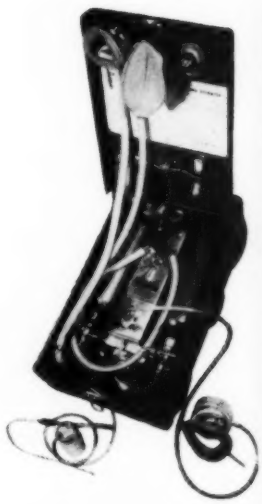
For SECOND AID

EMERSON Resuscitators

SIMPLE to operate.

SAFE for adults, children, or infants. No instance of injury ever reported, in thousands of cases. Accepted by the American Medical Association since 1942 for use *by laymen*.

PROVIDE SUCTION, alternating with pressure, to give vital aid to the circulation. Suction and pressure are mild yet effective—and not adjustable. Write for free Medical References on Resuscitation.



J. H. EMERSON COMPANY

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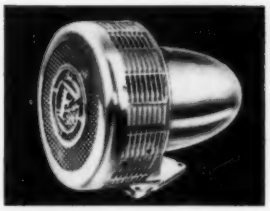
NOTE: YOU CAN SEE HIM TOO WITH HIS BEACON RAY!

Flashing 360°—commanding attention, giving all-round protection. Nothing like it. Write for bulletin.

Frankly, we doubt if anyone would (or would want to be near enough to) hear the "Q" above an atom blast. But, if ANY siren could be heard, you can bet it would be the Federal "Q"! . . . because Federal's "Q" is the LOUDEST, MOST PENETRATING siren you can buy! Federal, long maker of the best in sirens, has BETTERED THE BEST with this completely-new "Q" coaster siren. Its new motor produces greater sound volume with less current than many smaller sirens. New clutch gives exceptionally-long coasting period. Precision-built, rugged, super-powered, Federal "Q" is the BEST siren to protect and clear the way for your emergency vehicle! Write now for bulletin 301.



FEDERAL "Q" Siren

- **Loudest!**
- **Most powerful!**
- **Most penetrating!**

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FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

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FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

Wanted-and Useful in Far Away Places

THE influence of FIRE ENGINEERING is felt wherever there are organized fire protection forces.

● A case in point: The other day a request was received at "F.E." headquarters, from a top-ranking officer of a Fire Brigade in Israel. The subscriber, for he was that, said he had lost his February and March 1951 issues of FIRE ENGINEERING and would we please replace them.

● In itself this wasn't so odd (many chiefs have had their issues of "F.E." "swiped"). But it was the way they were lost that was unusual.

● It seems one of the Brigade's drivers was in an accident. A trial was held. To present the case properly, the officer used FIRE ENGINEERING as his authority, quoting a recent "Round Table" on traffic problems. The net result, he writes, was that "I had quite a fight with the plaintiff about the nature of FIRE ENGINEERING. He objected when I cited parts from the 'Round Table' . . . but the judge overruled him." Our constituent won the decision—but he lost the two copies he entered as evidence.

● The officer in question isn't the first to rely upon this Journal as his authority to buttress a case and win a point at law. It is the knowledge of this deep and fervid reader-acceptance that inspires the publishers of FIRE ENGINEERING to insist that always and forever, its editorial and advertising content shall measure up to that reader confidence.

The Publishers

FIRE ENGINEERING

The Journal of the Fire Profession since 1877; published on the fifteenth of each month by Case-Shepperd-Mann Publishing Corp., 24 West 40th St., New York 18, N. Y., also publishers of *Water Work Engineering, Wastes Engineering*, etc. ¶Subscription price: U. S., Latin America and Canada, $3.50 a year; Foreign, $4.50; Single copies, 40c. ¶Member of Audit Bureau of Circulations and Associated Business Publications, Inc. ¶Entered as second class matter April 15, 1929, at the Post Office at New York, N. Y., under Act of March 5, 1879.

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...with a five-way wallop
Being demonstrated here is the powerful JOHN BEAN Model HPV-750 Fire Fighter. This hard-hitting, two-fisted model combines TWO high-pressure and THREE volume lines. The two high-pressure fog lines each deliver 30 gallons a minute at 850 pounds pump pressure . . . while, AT THE SAME TIME, the three 2½-inch lines deliver a total volume of 750 gallons a minute at 150 pounds pressure!

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Here is overwhelming fire-quenching power that hits fast, and hard . . . and sure! The John Bean H.P.V. gives complete protection against all types of fires. High-pressure fog lines, *drawing from their own water supply*, go into action immediately to knock down rural, suburban, residential and business district fires. When volume water supply is available, powerful 2½-inch lines are at hand for controlling conflagration-type fires. You get dependable, all-around fire protection with John Bean H.P.V. Model HPV-750 Fire Fighter meets all the requirements of the National Board of Fire Underwriters, resulting in lower community insurance rates, while retaining all of the minute-man advantages of the original John Bean High-Pressure Fog. Rugged and dependable John Bean H.P.V. Fire Fighters are available in 500-, 600-, or 750-GPM capacities. Write today for all the facts.

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BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

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This is the wrong place for a shower bath

B. F. Goodrich Fire King hose is 50% stronger, 12% lighter

YOU reduce the threat of hose failures when you outfit your equipment with B. F. Goodrich Fire King hose.

For years engineers have been searching for a stronger, lighter fire hose cord. A new chemically-produced fiber has now been designed — especially for fire hose. Not affected in any way by moisture, mildew, mild acids or alkalies. Used in new Fire King hose as the cords that go *around* the hose and carry the load under pressure.

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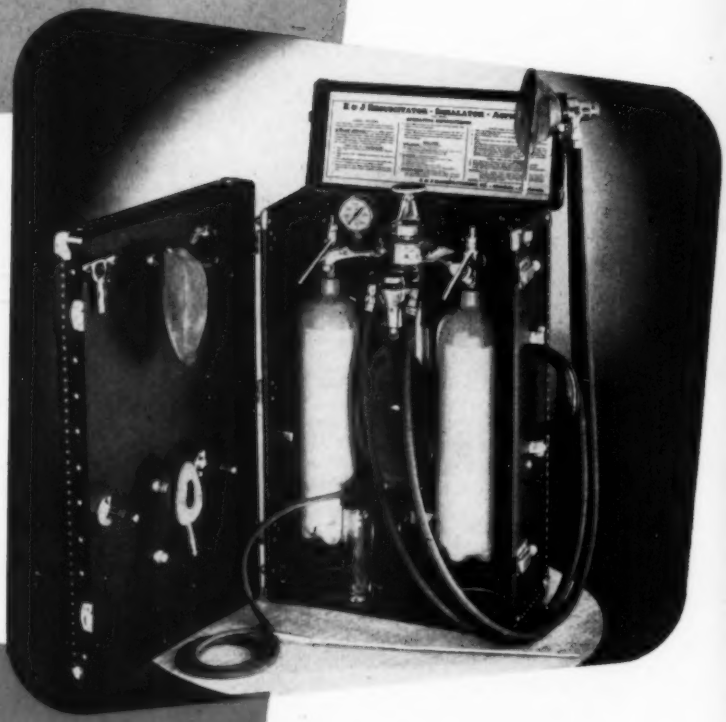
Fire King combines all the features of the highest grade B. F. Goodrich fire hose with a brand new feature — Fire King reinforcing cord. The result is a premium fire hose 50% stronger, 12 to 15% lighter, yet only slightly higher in cost.

Departments looking for ways to lower hose costs by getting hose that lasts longer should write for the name of nearest BFG Fire Hose Distributor. *The B.F.Goodrich Company, Industrial & General Products Division, Akron, Ohio.*

Fire Hose
BY
B.F.Goodrich

TO SAVE MORE LIVES

keep an E&J RESUSCITATOR on the job



E & J RESUSCITATOR • ASPIRATOR • INHALATOR

Your assurance of saving victims of asphyxiation is greater when you have an E & J Resuscitator available for immediate use. It breathes completely for the victim, using pure life-giving oxygen. It does it automatically, efficiently, safely, tirelessly and with built-in skill. Most hospitals throughout the world use it routinely; Rescue Squads say it is their greatest life-saving tool. *Don't be without it.*

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Equipped with HANNAY HOSE REELS

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HANNAY
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HOSE REELS*

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- ★ Extra strong construction to withstand high pressures
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Follow the lead of the leaders...specify "HANNAY"

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HOSE REELS
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'LOOK AHEAD' POLICY
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PROTECTED AUTOMATICALLY BY
ADT

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This is it . . . Goodall's old reliable cotton rubber lined construction, impregnated on the outside with fire-red Elastic "Rubberhide" Cover. Addition of this coating does *not* impair a single virtue of this famous Goodall hose, but actually improves it two ways . . .

Higher Resistance to Mildew. Seals the exterior of the hose against the permeation of mildew-producing moisture.

Greater Resistance to Wear. The coating gives the hose a firmer, smoother exterior surface . . . more durable against abrasive wear, and very nearly snag-proof.

It is just as flexible and easy to handle as standard hose, with greater strength and safety.

See for yourself! *Send for a sample* of this new RED fire hose by Goodall . . . the company with 81 years of hose-building experience. It's *your* hose, so you owe it to yourself to see it, feel it, test it. Just fill in and return the coupon.

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400 Lbs. Test Pressure

All Standard Sizes

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Gentlemen:
Please send sample and prices of your new RED Fire Hose.

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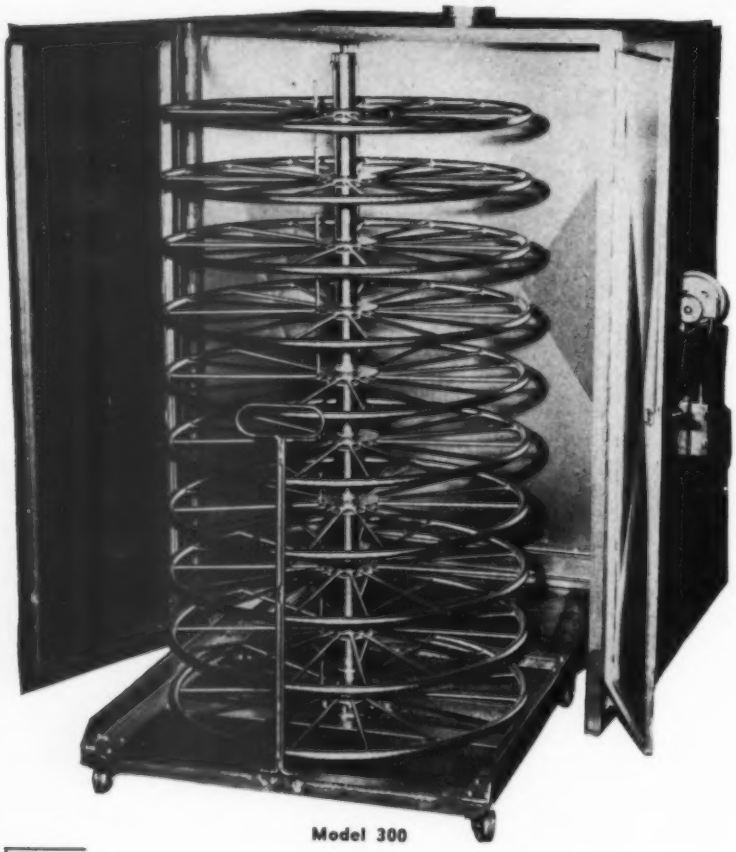
Address_____

City_____ Zone____ State_____

Att. of_____

New-Modern-Different



Model 300

Hall's "FORCED AIR" Hose Dryers

Dries hose faster than any other method

THREE models 100-200-300, each with capacity for 500 feet of 2½" or 1,000 feet of 1½" D. J. fire hose. 220 volts. 60 cycles. Two 3,100 watt 'fin type' heat elements. Two special thermostats—Dayton 'Squirrel cage' forced Air fan. Finish Red-White or aluminum. (White and red slightly higher.) Electric time clocks may be had at slight additional cost.

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Write for folder on other models.

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THE NEEP EQUIPMENT COMPANY

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THE SEAGRAVE CORPORATION
COLUMBUS, OHIO

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WITH MOTOROLA'S SUPERIOR-PERFORMING, PERMANENT-SELECTIVITY, SENSICON CIRCUIT

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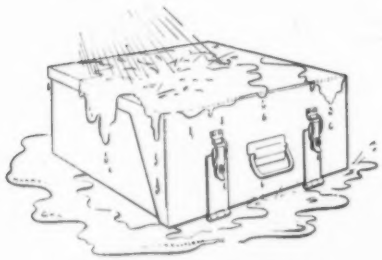
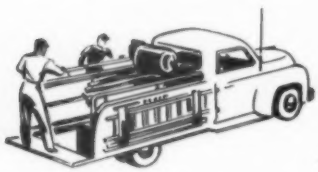


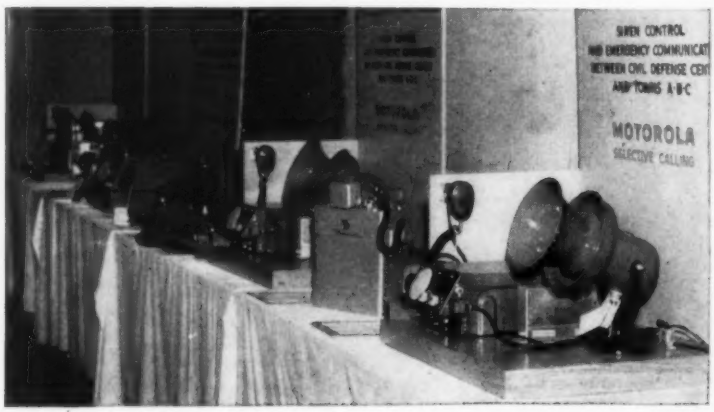
WATER-PROOF HOUSING

DESIGNED FROM THE GROUND UP FOR THE FIRE SERVICES



ON THE JOB EFFICIENCY

CIVIL DEFENSE—See how the famous Uni-channel is teamed up with the CIVIL DEFENSE alerting siren.



CUSTOM-BUILT
TRIPLE COMBINATION
FIRE APPARATUS

OREN

OREN ROANOKE CORP.

ROANOKE, VIRGINIA

"The South's Only Fire Truck Manufacturer"

NOVEMBER						1951
M	T	W	T	F	S	
			1	2	3	
	5	6	7	8	9	10
1	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

and this year—

even more people

are glad to be alive

thanks to well trained firemen

handling an—

ATLAS
LIFE NET

It's a fact that ATLAS NETS have been instrumental in many rescues. Many people living today are thankful for being rescued by alert firemen with an ATLAS life net. Because progressive fire chiefs have put our nets on pumpers, as well as on aerials and rescue trucks, still more lives will be saved.

The ATLAS has been constantly improved to the point where, today, it actually is "the world's finest life net". You can't buy a better life net—and you can't wait too long to fully equip your department with them—tomorrow may be too late! Specify "ATLAS" on all new apparatus—and be sure *your* department is all set for fire rescues.

ATLAS *"The World's best life net"*
27 Warren Street, New York 7, N. Y.
SAFETY EQUIPMENT CO., Inc.

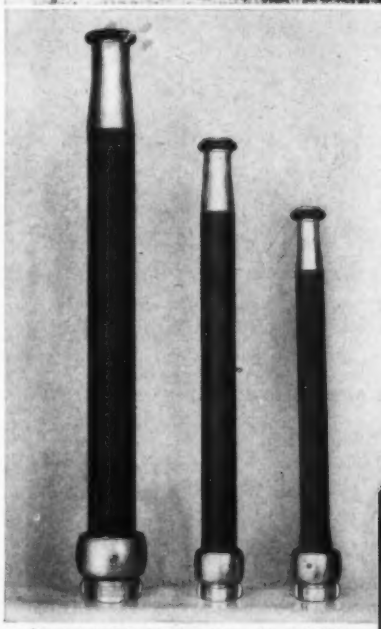
Can Produce Foamite Airfoam as Soon as Hose Line Can Produce Water

The Foamite Airfoam-Generating Nozzle produces Foamite Airfoam by the scientific mixing of water, air and Foamite Airfoam solution. Light in weight, the nozzle can be moved about easily when fighting a fire.

The Foamite Airfoam it produces blankets fire with a thick, stable insulation which shuts off oxygen and smothers fire quickly and easily—and it *stays* smothered! It extinguishes fire in both ordinary free-burning materials (Class A fires) and combustible materials (Class B fires). It floats on the surface of burning liquids, quickly surrounds obstructions, and clings to solids. It prevents reflash.

Foamite Airfoam Liquid operates with fresh or salt water; with hot or cold water; will not ferment or mold; is not susceptible to decomposition from bacteria; is noncorrosive; available in 3% or 6% solution.

The Foamite Airfoam-Generating Nozzle is furnished in three capacities, model 300, 600 and 1200, producing at 100 psi operating pressure, approximately 300, 600 and 1200 gallons of Foamite Airfoam respectively. Write for literature.



Model 1200, Model 600, Model 300.

OUR *2nd Century of Leadership in* FIRE PROTECTION

AMERICAN-LAFRANCE-FOAMITE *Corporation*

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ALFCO

It's New! THE NOMA SAFETY FUSE PLUG

The Greatest Safety Development In Xmas Lighting

since the electric lamp replaced the wax candle

Another NOMA FIRST
by the FIRST name in Xmas Lighting . . .
NOMA

This is the biggest news to hit the Christmas lighting trade in years. *Every* home owner — whether his Christmas lights are new or old—will need at least one set of SAFETY PLUG lights for the safety of his family!

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55 W. 13th Street, New York 11, N. Y.

NOMA — The Greatest Name In Christmas Lighting

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AMERICA'S LARGEST LINE OF DRY CHEMICAL FIRE EQUIPMENT!

ONLY *Safety First* OFFERS...

Fast Acting, Highly Effective Dry Chemical Fire Extinguishers From

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The exclusive Safe-T-Meter gauge tells you at a glance it's **Ready To Go!**

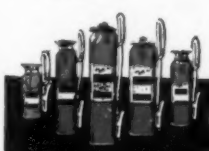
A LEADER IN DESIGN AND ENGINEERING

Safety First, a leader in design and engineering of fire fighting equipment, still leads the field with the largest, most versatile line of fast-acting, highly effective Hand Portable Dry Chemical Fire Extinguishers! This complete line of 9 powerful, sturdily-built sizes ranging from 2½ to 30 lbs., offers an extinguisher for any price or need. Available in the regular industrial type or the revolutionary pressurized Safe-T-Meter model with the exclusive visual gauge for on-the-spot inspection.

NEW RECHARGE CYLINDER MAKES PRESSURIZING EASY!

Just follow simple directions on recharge cylinder label... no tools or technical knowledge is needed. When cylinder is expended return to your Safe-T-Meter dealer for replacement.

SAFE-T-METER FEATURES!
Approved Underwriters' Rating, Pressure Gauge Tells Status Of Extinguisher At A Glance, Can Be Used Intermittently, On-The-Spot Refilling, No Tools Required



Safety First PRODUCTS CORP., ELMSFORD, N.Y.

Friend of the Firefighter!

MIDWESTERN PROTECTIVE CLOTHING

for Men of Action!

Modern fire fighting calls for *specialized* protective clothing that safeguards the fireman's life on every run . . . clothing that enables him to use his equipment to the fullest advantage.

Every Midwestern product combines the thoughts and suggestions of practical Fire Chiefs and firemen from every section of the country . . . and every purchaser profits from years of Midwestern research and experience. That is why the famous Mackinaw Coat and other Midwestern clothing have embodied in their design every feature necessary for the protection and comfort of firemen.

In our vast selection of rubber materials you will find a type of fabric suitable for your climate and needs. The softness and flexibility of the high-grade materials used are your assurance of long time service and comfort.

Due to government requirements for Midwestern Protective Clothing, it will assist in prompt delivery if you place your order early. For complete information, have your Midwestern dealer show you our full line. A letter to the factory will also bring you material samples for your inspection.

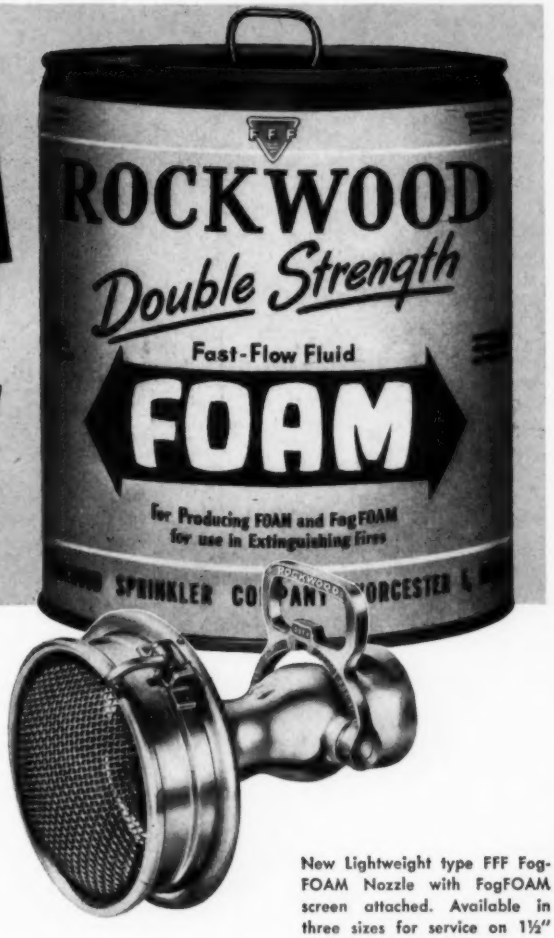
NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN MFG. CO., Mackinaw, Illinois

Manufacturers of the Famous **MACKINAW Coats**

3 better ways to fight fires...

ALL WITH ONE NOZZLE



1 Fog FOAM
2 Solid FOAM stream
3 High Velocity WaterFOG

Rockwood *Double Strength* FOAM Liquid used thru Rockwood FFF FogFOAM Nozzles enables fire fighters to cover burning surfaces with a blanket of FOAM faster and more efficiently. The 3 methods — 1. FogFOAM, 2. Solid FOAM Stream and 3. High Velocity WaterFOG combined in the one FFF FogFOAM Nozzle will give you a *better weapon* for extinguishing and controlling fires in gasoline and other flammable liquids and materials.

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(1.) Thru the FogFOAM screen a wide pattern of FogFOAM can be applied directly to the burning gasoline without harmful agitation to the surface. This means faster and more efficient extinguishment of fire. FogFOAM screen can easily be attached or removed.

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PORTABLE FIRE PROTECTION DIVISION

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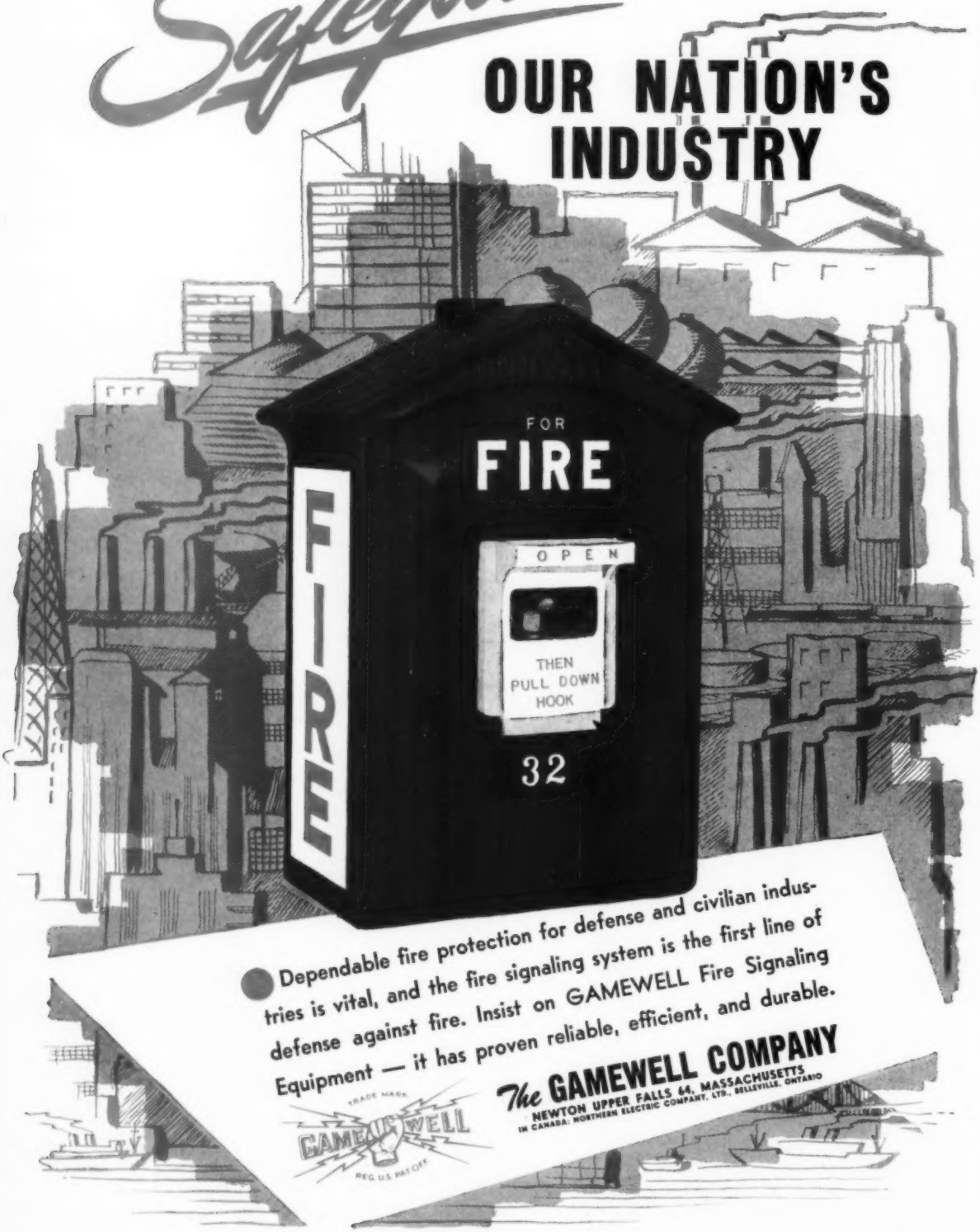

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FIRE ENGINEERING

NOVEMBER, 1951 VOL. 104, NO. 11

With the Editor

Mr. Editor—Your Slip Is Showing! It is only natural that the nation's fire service should look to the largest fire department in the world, that of New York City, for inspiration and guidance. For a generation and more, fire organizations have patterned policies and procedures after this great organization.

When, therefore, New York discontinued the use of sirens on its fire, police and health emergency vehicles as a concession to civil defense officials, it was natural that other cities, large and small, should consider doing likewise.

But the New York Fire Department did not make the decision to dispense with sirens. That decision came from misinformed civil defense officials and against the universal protests of not only the fire service of New York, but of practically every fire service association and group in the nation and Canada.

Unfortunately, except for the editorials opposing the action in this journal, the nation's fire forces and, of even greater importance, the heads of municipal governments generally, have never known what was behind New York's action, or the real consequences. Therefore the immediate reaction to the "no siren" order was: "if New York does it, we should."

This reaction received further impetus when a New York newspaper, one of a nationwide chain, published a statement to the effect that removal of sirens was a good thing; had been beneficial to all parties, and quoted certain fire officials as being very much in accord with the decision.

Although other Metropolitan New York papers printed facts and figures to the contrary, these messages were little read beyond the suburbs of the big city. On the contrary, the story in the chain of papers raised the question from coast to coast, why use sirens? These queries came to FIRE ENGINEERING, from fire officers from California to Maine.

On September 21, the "Seattle Post-Intelligencer" (one of the beforementioned chain of newspapers) which originally endorsed New York's removal of the siren as an emergency warning signal, urged that Seattle follow the example of New York. It said, among other half-considered statements: *"All that Seattle need do is to profit from New York's experience and install ordinary bells on its emergency equipment."* It repeated some of the arguments in the New York edition and said: *"There has actually been a decline in the number of traffic accidents involving New York's emergency vehicles since the bells were installed, and there has been no appreciable interference with their progress through the streets."*

For the benefit of the Post-Intelligencer's editorial staff, and readers of FIRE ENGINEERING, although every conceivable kind of substitute warning device has been installed on New York's emergency vehicles including ancient locomotive and fire bells which distinguish ambulances, the fact is that not a few fire vehicles have no buckeye whistles nor other signalling equipment as effective as the siren. Neither bells nor gongs appear to make any dent on either vehicular or pedestrian traffic. Nor can the fire department buy any more buckeye whistles. They're reported off the market.

As for delay? Let the author of the editorials in the above chain of papers go out and talk with the officers and men who drive and operate these emergency units—in all categories.

And just for the record, let him ponder these facts: Based on each 10,000 *miles traveled by fire apparatus in New York City during all of* 1949 *and* 1950, *the percentage increase in accidents since the banning of sirens on September* 12, 1950, *has been* 27.3 *per cent. Furthermore, examples of typical runs in midtown Manhattan, coupled with the running times previous to and following the ban on sirens, show that the time required to reach the scene of a fire following receipt of an alarm is* 73 *per cent greater than before sirens were banned!*

But this isn't the entire story. The fire record shows woeful delays in response—first-due companies coming in last (or not at all); chiefs with radio cars notifying dispatchers by radio of their inability to pierce traffic, and returning to quarters (when the call is reported not serious); and perhaps worst of all, a lowering of morale of fire fighters who are finding it more and more difficult to gain the right-of-way for their apparatus, which the law has in the past assured them.

Fred Shepperd

Cause of Brighton Disaster Remains Undisclosed

More Details on the Natural Gas Distributing System; Value of Mutual Aid Attested; Some Conclusions Reached

A SPECIAL REPORT

Editor's Note: **The explosions and fires which marked the natural gas disaster in Brighton, N. Y., on September 21, last, set in motion a chain of events which have had, and will doubtless continue to have considerable repercussions within the natural gas industry and its affiliated public utilities and other organizations, and within the nation's fire service, for some time to come. Out of the catastrophe, regrettable as it was, good is certain to eventuate, if the lessons this tragedy teaches are taken to heart.**

The Brighton disaster occurred about as this Journal was going to press with its October, 1951, number, and before even preliminary fact findings into cause and effect were available. For this reason, the account in the October issue was, at best, sketchy.

Since that time the editors have received additional information from authentic sources, although complete reports of investigating agencies are still unobtainable. Believing that *Fire Engineering's* readers desire all possible data about the disaster now, while the matter is still fresh in mind, particularly the details of fire force operations, the editors are pleased to submit the following interim report. In so doing, grateful acknowledgement is made to the following: Former Fire Chief Walter Buckert, of the Brighton Fire Department (now secretary of the Fire Commission); members of the staff of the N. Y. Division of Safety, Bureau of Fire; numerous contributors, including John W. Zuidema, Rochester; the Rochester and Brighton press; the American Gas Association and National Board of Fire Underwriters, whose detailed report of the disaster is eagerly awaited.

THE investigations into the explosions and fires that resulted in the deaths of three persons, and destroyed or damaged over 40 homes in Brighton, residential suburb of Rochester, N. Y., on Friday, Sept. 21, last, have thus far (Nov. 1, 1951) failed to determine the cause.

It is established that an explosion of considerable severity occurred in a regulator vault located in front of the Chateau Restaurant, at the corner of Monroe Ave. and Winton Rd. S. The vault, apparently the key to the catastrophe, is below the surface of the ground, between the sidewalk and street in Winton Rd. S., about 20 ft. north of Monroe.

The natural gas which supplies Brighton is piped from Texas and reaches Monroe County, N. Y., at the town of Wheatland, through a 14 in. pipeline. From Wheatland, the gas flows through a 14 in. pipeline to the Rochester and Brighton area at a pressure of approximately 25 PSI. Along the route, the pipe is reduced in size to 12 in.

About 30 ft. south of the junction of Monroe Ave. and Winton Rd. S., at a point almost in front of Brighton Fire Station No. 2, the gas passes a valve, installed as a precautionary measure, so that in an emergency or during repairs, this valve can be used to reduce gas pressure manually or to shut off the flow completely.

After passing this valve, the gas, (with pressure still at 25 PSI) enters the above-mentioned vault about 200 ft. further north.

Photo by Bunnell

How fire spread following dwelling explosions in Brighton.

The problem fire fighters faced in controlling fires that involved over 40 dwellings and threatened entire area of 2,000 homes and other structures. Note wind carrying embers.

The Regulator Vault

The vault is a brick and concrete structure consisting of three separate chambers, each one about 8 ft. square and 7 ft. deep. The entire vault is roofed over with steel street car rails weighing 90 lbs. per lineal foot, of concrete primarily as a protection against the possibility that a heavy truck might go out of control and plunge through the structure.

Set in the roof of the vault are manhole covers reported to be heavy enough to stand up under traffic, but light enough to serve as safety vents in the event of an explosion in the vault. The covers have no holes, in order to prevent cigarette butts, matches or other materials from dropping into the vault and igniting any fumes that might exist.

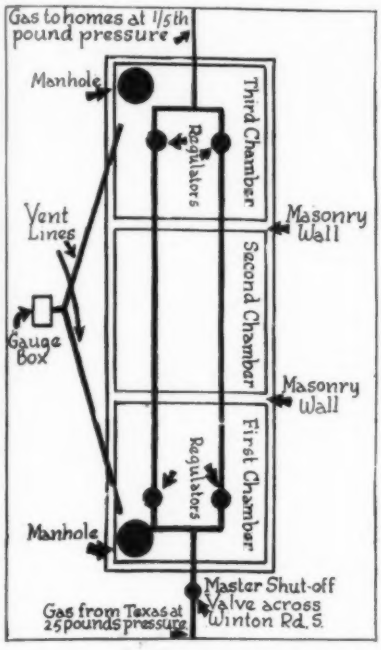
In the first chamber of the vault are two regulators, which reduce the gas pressure from about 25 PSI to about 5 PSI. After going through the regulators, the gas pipes (with gas now at about 5 PSI) pass through a masonry wall into the second or middle chamber. This houses the auxiliary equipment (filters, etc.,) and is used as a safety measure to separate the first chamber from the third chamber.

Following this, the gas pipes pass through another wall into the third chamber, with gas pressure still at about 5 PSI. In this chamber are two more regulators which reduce the pressure from 5 PSI to one-fifth PSI. Two sets of regulators are used instead of one, according to the Rochester Gas & Electric Co., to obtain finer regulation and insure greater safety. They serve another purpose, too: If the regulators in the first chamber fail to function properly, those in the third chamber could handle the 25 PSI pressure and reduce it to one-fifth pound. It was in this vault that the initial blast occurred, permitting the gas to flow under excess pressure into the lines feeding the residences.

According to R. G. & E. authorities, still another check on the pressure is provided. Vent lines run from the first and third chambers to a gauge box outside the vault. Charts in this gauge box automatically record the performance of the regulators. A permanent record is made by the mechanism. The charts are checked and replaced daily

and submitted to R. G. & E's. superintendent of distribution.

As the charts are checked at the gauge box, the company employe checks to determine whether there is any leakage of gas from the regulators or chambers. This is done daily, it is said, by sniffing or smelling for fumes, and is rechecked periodically with instruments. The gauge box has openings to permit fumes, if any, to escape.



Courtesy Rochester Times Union

Layout of vault housing gas pressure regulators is pictured above. View is from top. Gauge box is at surface for daily reading.

All pipes running from the regulators to the homes are either steel or cast iron. They are reported strong enough to resist pressure of 150 PSI, externally or internally. This is to resist corrosion and prevent structural damage to the pipes. Pipes in the regulators and valves resist pressures of 250 PSI.

The gas leaves the third chamber (and the vault) at a pressure of one-fifth PSI and enters the so-called "low pressure" system. There it travels through the distribution mains (street pipe lines) and the service mains (street to house lines) into the dwellings, and to the appliances. The Brighton section was the only one using the low pressure system, reported by company officials to generally be the safest distribution system known.

Following consultations between Company and Brighton officials, several changes have been made in the system. Regulators will be installed in every home in the area to maintain a constant gas pressure of one-fifth PSI on all appliances and piping in homes regardless of any increase in the pressure existing in the outside pipe lines. The pressure as the gas leaves the Twelve Corners will be stepped up—probably to one-half PSI at the most, in order to keep the regulators in the homes "active", and to keep regulators from becoming rusty or suffering other damage through abuse. As an added precaution a "mercury seal" will be installed within each house, just past the inside regulator. This device limits the pressure in the house to one-fifth PSI. If pressure exceeds that limit for any reason, the mercury seal will divert the gas through a vent leading outdoors, where, according to R. G. & E. officials, it will dissipate in the air.

Another precaution will be the installation of a master seal at a point between the Twelve Corners and the homes. This seal will prevent the pressure in the entire system from becoming excessive. It will have an above-ground vent through which gas will be released if pressure becomes excessive. Furthermore, the master seal will be designed so that it will make a whistling noise if the gas pressure becomes too high.

Prior to the Explosion

Testimony of witnesses indicates that for eight days prior to the explosion, crews were operating at the regulator vault. No pipes inside the vault were removed or shifted. On Sept. 12 an excavation was made at the north end of the vault's north manhole as part of a corrosion protection program. This excavation was to permit work on the outside of the vault. On the 19th, men entered the vault to make checks in connection with the corrosion program, and on the 20th, the day before the blast, the men began filling in the excavation.

At the time, a sidewalk was being installed by a contractor employed by the company. The job was reported finished about 1:15 P.M. on the fateful Friday, according to one witness, who left a "lighted kerosene lantern" (some reports described this as a 'flare') about 20 ft. from the vault as a warning to passersby. He walked across the street to his motorcycle. There he heard the first explosion, and ducked behind his motorcycle. No odor of gas was reported prior to the explosion it is said. One witness, a foreman of the regulator crew, however, told of finding a "very small leak" in a valve connection near the vault on the Tuesday preceding the explosion, while inspecting a connection that had been left uncovered in the course of the excavation work near the regulator vault. He made a soapsuds test and the leak made only a small bubble. He tightened the "packing gland" on the valve and later test showed no leak.

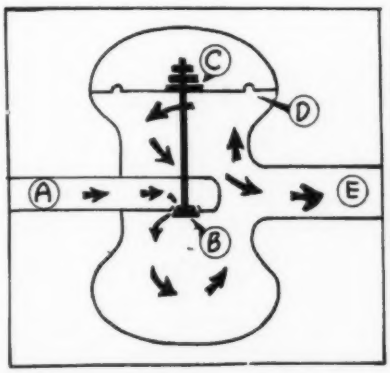
The initial explosion came shortly before 1:20 P.M., it is believed, and was severe. A company official admitted that natural gas, if it had leaked into the vault in which the explosion occurred, might have exploded. Officials also agreed that dynamite could have been responsible for the blast.

Apparently some combustible mixture accumulated in the vault and became ignited. Initial reports indicated a flare might have been responsible. From witnesses it was disclosed that workmen smoked on the job. It was also said a heavy concrete truck, delivering concrete for the sidewalk construction, had passed "about 10 ft." from the vault earlier in the day. Other witnesses said the truck did not go over the spot where the explosion took place.

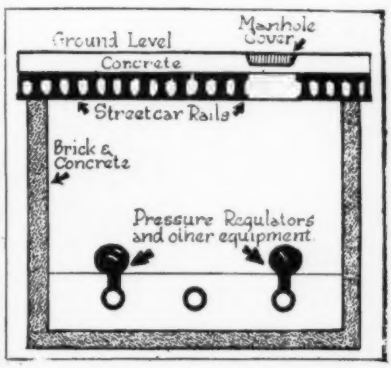
Public Service Commission investigators reportedly found a 4-in. long stick which was believed to have entered the regulator valve when the manhole cover was blown off the valve vault. "Foreign matter" was also reported found in one of the regulators later dismantled in the company's shop. The stick is believed to have damaged the pressure reducing valve, causing the overload on house transmission lines and resulting explosions.

Company officials also admitted that blasting for a sewer not far away might have had some effect on the cause. At any rate, the explosion lifted up the vault covering and dropped pieces into the vault, the action damaging the regulators, with the results described. Fire followed the blast in the vault almost immediately.

Some confusion existed over the time of the first explosion. A policeman reported receiving a radio call about "an accident at Winton and Monroe" at 1:10 P.M. while on patrol about a mile away. After he reached the scene, he said he saw firemen fighting the fire in the vault. As he returned to his car to call for



Gas pressure regulator is shown in cross-section. Gas enters at A at 5 pounds pressure. Pressure is reduced to one-fifth pound as gas passes valve B. Weights at C regulate pressure reduction. If pressure is sufficiently reduced, gas in chamber raises diaphragm D, which lifts weights C, thereby reducing opening of valve B to proper clearance to keep pressure at one-fifth pound. Gas leaves regulator at E.



Courtesy Rochester Times Union

Structure of vault housing gas regulators is shown by diagram. Note heavy walls and roofing of steel rails and cement. Original blast occurred in this vault. Collapsing materials from walls and roof are believed to have damaged regulators in such a way that they failed to hold gas at low pressure requirement.

assistance, he heard and saw an explosion in Buckland ave. vicinity.

Charts taken from automatic pressure recording devices, offered as exhibits, showed that the pressure regulator failed at approximately 1:20 P.M. Friday, Sept. 21, and pressure in the low pressure distributing system went "off the scale" at about 1:30 P.M. The high pressure, which pushed the recording pen right off the chart, also wrecked the mechanism of the device. These recorders, it was said, while accurate in recording pressures on the system, are not too accurate timing devices.

Company officials reached the scene quickly, but there apparently was a delay in closing the main valve near the regulator vault. This was reported done at 2:09 P.M. One witness attributed a delay to the fact that the explosion had shifted the protecting box around so the key with which the valve was turned could not be fitted into it. It was necessary to dig out the box by hand and that was difficult because of the fire raging nearby.

It was also disclosed that the location of this master valve was not known to firemen generally. Some accounts state there was a gas pressure gauge in Brighton Firehouse No. 2, the pin of which jumped off the chart at 1:30 P.M., when the operating mechanism was destroyed. By means of the charts, it was determined that the first blast came at approximately 1:20 P.M.

Fog Used on Vault Fire

Brighton firemen, first to respond, used water fog on the vault fire, it is said. An executive of the company said firemen were pouring water on the fire in the vault at Twelve Corners when R. G. & E. workmen arrived. The gas workers, upon arrival, immediately attached a fire hose to a drip line leading from the surface into the gas main, and shot water into the gas, in an effort to cut off the pressure. Normally the drip pipe is used to remove water from the gas line, but can be used to pump water in. The main gas valves were turned off shortly after the flooding operation was completed, but the damage had been done. Sufficient gas escaped under excessive pressure to rupture house meters and create explosive mixtures in areas that were closed up. These mixtures were ignited by pilot lights or other means.

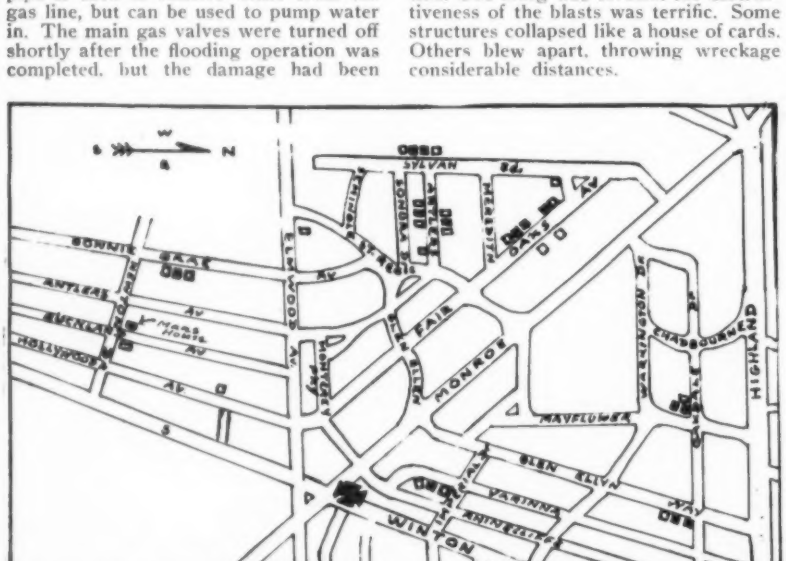
As some fire fighters operated to control the vault blaze, others, with policemen, Former Chief Buckert, and volunteers, hurried to reach householders before more explosions occurred. Many acts of heroism were performed in this effort. Some houses practically disintegrated in their faces, some suffered damage, and others burst out in flame. Where entry was possible and doors and windows could be opened and the gas mixture diluted with air, no explosions took place. In a number of instances, volunteers, and even householders, resorted to breaking windows with stones and other missiles, when unable to make entry because of gas concentrations.

As rapidly as they labored, however, explosions continued, at close intervals. Nor were the blasts in any particular order or pattern by geographical location. One thing was certain: the destructiveness of the blasts was terrific. Some structures collapsed like a house of cards. Others blew apart, throwing wreckage considerable distances.

Photo by Bunnell

Fire completes destruction caused by gas blast—many dwellings threatened.

Firemen attacking hot blaze in demolished Brighton house, which threatened neighborhood. At this stage many persons were believed trapped in ruins of blasted and burning dwellings.



Blast area is shown on the diagram. The large cross indicates spot at Twelve Corners where the explosion occurred. Black squares indicate where houses were destroyed. White squares show where houses were damaged (many of them heavily). The Maas home, where two were killed, is shown on Buckland Ave.

Once again the Monroe County mutual aid plan paid off in dividends. The system "for which there are not enough words praiseworthy enough" according to Brighton papers, swung into action almost immediately after the first dwelling blew up.

The first two companies called from nearby Rochester were ordered by Fire Chief Alvin De Hollander of Brighton, to fill-in and cover the town. Radio was used for this and most of the succeeding fire mutual aid communications. The initial call went through Brighton Policeman Harvey Le Roy in Radio Car 225.

The second call (to Rochester) from Brighton Fire Headquarters was made by Brighton Commissioner Howard G. Wackerman, over the direct telephone line from Brighton Fire Headquarters to the Rochester Central Fire Headquarters. This asked for a pumper to proceed direct to the scene of the explosion. Rochester Fire Chief John Slattery responded on this call and upon his arrival in Brighton, was instructed, by Commissioner Raymond C. Kerrigan of that town, to dispatch as many pieces of equipment as would be needed to meet the emergency, as the explosions by then were occurring rapidly.

Chief Slattery ordered Rochester units with the exception of the first three as follows by radio from his fire car:

1:36 P.M. Engine 19
1:39 P.M. Engine 15
1:39 P.M. Engine 117 and Chief Slattery
1:48 P.M. Engines 8, 1, 7, 14 and 6 with Deputy Chief Kelly
1:49 P.M. Engines 2, 3 and 4
1:54 P.M. Engines 16, 5, 10 and 21
1:57 P.M. Engine 25
2:17 P.M. Engines 23, 13 and 18
2:24 P.M. Ladder 4
2:33 P.M. Laureiton Fire Department and Engine 9 (Rochester)
2:49 P.M. Engines 14R and 23R (Rochester Reserve apparatus)
2:52 P.M. Engine 12 and the Rochester Protectives.

While the calls for Rochester forces were being dispatched, other calls for additional assistance, not alone of fire fighting equipment, but other services, were going to neighboring communities. In some cases the radio was used, in others the telephone.

Most of these aid communications went out over the Brighton Fire Department switchboard with former Brighton Chief Walter Buckert, now secretary of the Fire Commission, and Fireman Peter Gysel doing the calling. Chief Buckert, whose home is not far from the scene of the blast, and who initially performed

Photo by Bunnell

Brighton firemen use water fog on gas vault fire.

Scene of initial blast in regulator vault which released natural gas under excessive pressure into homes of area resulting in deaths to three and total or partial destruction of over 40 houses. Vault was subsequently flooded and water injected into mains to drop pressures. Note effects of explosion.

yoeman service at considerable risk, entering houses in the district to cut off the gas supplies, was ordered by Chairman of Commissioners Kerrigan to take charge of the busy switchboard. After taking over, Chief Buckert handled all mutual aid calls from the time the first three Rochester units were summoned.

As in the case of most large-scale disasters and emergencies, the detailed operations of requesting help, and of utilizing it after its arrival, cannot be accurately chronicled. As the magnitude of the emergency unfolded, and the need of every kind of available assistance became apparent, the communications problem in Brighton grew apace. Not only was it necessary to get the calls through to the proper agencies in Rochester and other communities over a wide area but, fully as important, some means of dispatching and directing the equipment and men operating throughout the explosion and fire area had to be developed. Here the problem was acute. Walkie-talkies, which would have ben of tremendous value to the fire service, were not available in sufficient number. The only communications, aside from messengers, were by means of radio equipped police and fire cars, and in some instances, through other radio-equipped services. According to fire officers and other authorities at the scene, the communications difficulty was not that there were too few means of communications, but perhaps too many. There were radio-equipped services aplenty, from the sheriff's office, state police, "hams" and amateurs, air force police from Samson Naval Base, utilities and others, all pouring into Brighton as the news of the disaster spread. But there was no single easy way of coordinating all these services, communications facilities. The load, therefore, fell largely upon the fire and police department radio, and the available telephones, which fortunately had not all been knocked out by the explosions and fires.

Because of the pre-arranged plans of the Monroe County mutual aid system, of which the City of Rochester Fire Department may be called the keystone, the movement of area fire forces into Brighton and to cover up districts of Rochester left unprotected by the dispatch of that city's fire apparatus into Brighton, worked without serious hitch.

More than 35 fire companies under the direction of Public Safety Commissioner Kenneth C. Townson were eventually set up as an equipment pool at the Twelve Corners. This was the center also for Red Cross, Civil Defense, Police, Auxiliary Scouts, Medical workers and ambulances. This area, located near the Brighton Fire Station No. 2, became the hub of all disaster operations.

Orders were issued for the dispatch of the various services to the disaster points by means of a loud speaker system. Meanwhile police and other sound trucks toured the streets of the explosion area warning people to "get out of your house—yours may be next!"

Out-of-town fire companies that responded with men and apparatus, representing what are known in the County Mutual Aid Plan as the 1st, 2nd, 3rd, 4th, and 5th battalions. They include the following forces:

North Greece	Laurelton
Gates-Chili	Henrietta
West Webster	West Henrietta
Webster	Hilton
Penfield	Chili
Fairport	Ridge Culver
Pittsford	Grand View
East Rochester	Scottsville
Union Hill	Barnards
Spencerport	Genesee Valley

In addition to this response, there was considerable other movement in the County to insure protection to all areas, and of other services. More than 450 Civil Defense personnel from outside the Brighton area reported for duty. All Auxiliary Police and Wardens were registered and assigned from the headquarters desk in the Town Hall. Represented were units from Rochester, Greece, Gates, Irondequoit, Webster, Rush, Hamlin, Clarkson, Fairport, East Rochester, Brockport, Hilton, Chili, Sweden, Parma and Spencerport.

Over 100 Rochester Police Reserves in uniform served from Friday through late Monday; 85 Air Force Police from Samson, worked in relays. About 500 of Brighton's own CD forces served continuously for three days, assisted by Red Cross with its two canteens and mobile canteen service.

Mobile transmitters and radio cars ultimately were received from the CAP Communications unit and these reportedly did excellent work as did the CD Communications Service from Rochester.

It is doubtful if all the forces that cooperated to aid the stricken area of Brighton will ever be known. In the first general reports of aid, 21 Rochester fire companies with complete complements of apparatus and men were dispatched to various emergency spots in the town, while over 15 towns in the mutual aid area, as listed, sent apparatus and personnel. In addition to other mentioned facilities special lighting trucks, wreckers and various emergency vehicles for shuttling tools and other supplies, streamed in.

Brighton Volunteer Firemen had seven men at each firehouse who remained on duty for the period of the emergency, sleeping on cots hastily procured, and in chairs. These men took their tour of duty along with the overworked paid firemen.

Water Supply Showed Drop

The water supply in the area failed in some instances to provide adequate supply for the many incoming pumpers. However there was some water in the public mains at all times although, at its lowest point, pressure was reported at 10 and 20 pounds. The fall in pressure was occasioned not alone by fire fighting operations, but by bleeding of some of the house connections as a result of the explosions.

Hose used by the Rochester fire forces totaled approximately 20,000 feet. Of this, 4,000 was 1½-inch and 16,000 2½-inch. Service hose used by County fire companies totaled about 15,000 feet. In addition to this, considerable booster hose was in operation.

The normal water pressure in the area is 70 pounds on one side and 90 pounds on the other side of Monroe avenue. This was said to be the pressure at about 1:20 P.M. The 70 pounds dropped down to 10 pounds and the 90 was reduced to 20 at about 3:15 P.M. when operations were at their peak.

In the light of the magnitude of operations it is considered providential there were not more injuries, and more serious injuries among the fire fighting forces than there were. However, in the lengthy press accounts of operations, there was perhaps too little attention given this detail of the struggle to control the fires as well as to enter homes and shut off the gas supplies in the operations.

Five Brighton fire fighters were injured in the operations. Chief Alvin deHollander received a sprained ankle in the second blast. Other casualties were: Fireman Morton Seymour, overcome; Barney Shannon, cut hand; Arthur DuBois burned; James Rowland, overcome by smoke, and Robert Stoll, leg injury.

Casualties among the large force of Rochester firemen were much higher. The most seriously injured was Deputy Fire Chief A. E. Foos who was knocked out by fumes and smoke, and who was rendered unconscious for a period of 45 minutes. He and a number of others were hospitalized.

Traffic Problem Acute

The Brighton disaster provided ample testimony of what might be needed in the way of traffic control, both pedestrian and vehicular, should enemy air raids ever eventuate in or near American cities.

The problem of handling the surge of traffic of all kinds that converged on

the suburb of Brighton, normally a quiet, peaceful, residential area, was acute. It persisted for many days, reaching its peak (with vehicular traffic) nine days later on Sunday, when the cordoned off area was opened.

The response of fire apparatus and other aiding forces into the affected district was seriously handicapped by the influx of the curious sightseers, and to less degree by residents of the area who had been caught away from their homes by the explosions and who dropped everything to rush back to learn the fate of their property and friends. This surge was given impetus by the continued broadcasting of the emergency by commercial broadcast stations, and by the "grapevine" that so quickly spreads rumors in time of such crisis.

It is said by FIRE ENGINEERING's correspondent, Chief Buckert, that when city fire equipment was coming in to the Brighton fires, some of the vehicles had to take to the sidewalks. Other emergency equipment, likewise, had to try detours, or was stalled in the traffic jams.

Traffic the first day was reported tied up in a two-and-a-half to three mile square area, despite desperate efforts of all available police to clear paths for incoming aid. Police, through all possible means, pleaded with the public to stay away from the area, but neither pleas, nor warnings of possible danger to the spectators, seemed to halt the morbidly curious. On Saturday, Sept. 22, after the police and volunteers had thrown a cordon of sorts entirely around the affected district, Acting Police Chief Edwin M. Wildey issued the statement: "All unauthorized traffic is prevented from entering the area and motorists attempting to get into the area will not be able to get close enough to see anything and will just be adding unnecessarily to the traffic congestion."

In addition to blocking off the large area affected, which included approximately 2,000 dwellings and other structures, police had the task of patroling the thoroughfares within the district, to guard against pilfering and thievery, and help prevent later explosions.

To properly police an entire area and guard against pilfering, police deputized large numbers of volunteers and employed civil defense and other workers who operated 24-hour patrols in and around the district. Brighton auxiliary police were of special assistance to the regular force.

Conclusions

Although it is too early to draw complete conclusions from the disaster, in view of the delay in completion of official investigations, and the matters of policies and politics involved, the information presently at hand does offer food for thought out of which anyone should be able to draw his own conclusions.

From the over-all consideration of the disaster, and the way it was met, these observations would appear in order—

1. No community, whether residential, business or industrial, served by facilities such as gas, is impervious to disaster in one form or another.

2. This catastrophe, like others of its kind, provides ample evidence of the need for sound pre-planning for mutual aid, in which basic reliance is placed on the regular municipal services, such as fire and police. Such planning should determine in advance the means and methods of locating necessary reinforcements of whatever nature, of procuring them, and putting them to work. Even a paper plan is better than none.

3. The disaster also affords a sufficiently close parallel to what might be expected (on a larger scale) in time of enemy attack to show the need of and warrant the organization of civil defense forces on as large a scale as possible in every community.

4. The incident shows conclusively that big city, municipal fire forces can work alongside small volunteer fire forces in time of emergency, if there is any degree of preplanning, and willingness to give-and-take.

5. Unquestionably this disaster demonstrated the imperative need of adequate communications, both for setting up fire defense, bringing in reinforcements, and for directing their operations at the scene of the trouble. In this case, radio was the mainstay of all communications. The telephone system, through no fault of the utility, was overtaxed, and could not be relied upon. Messengers cannot be depended upon either, to function over large areas where there may be road blocks or hazards such as explosion and/or fire. In the time that messages can be written out, the wheels can be put in motion if proper radio communications facilities are available.

On-the-ground disaster communications should include portable pack-type radio (walkie talkies) and public address systems. The latter is essential for mass public instruction. The handy, portable powered megaphones serve a great need in such situations.

6. Some way should be found to make better use of telephone and public commercial broadcasting facilities for instructing and warning the public, than is presently the case. Commercial broadcasting of disasters could well be delayed until the fire chief or other authority in charge is consulted, and his advice secured as to how the broadcast message can be made to help, rather than hinder operations.

7. Pre-planning should help to insure better integration and coordination of the many different assisting agencies in time of disaster, and thus reduce confusion, lost time and effort.

8. The incident demonstrated the importance of having a suitable command post or GHQ from which to direct fire control and related operations. The circumstance of having Brighton Fire Station 2, with its various accommodations, close by the scene of trouble, was fortunate. Incoming forces should know where to report and to whom; and from whence will come their orders and sustenance.

9. The wisdom of setting up a pool for reinforcements was emphasized. Having these reinforcements at GHQ, from which they could be dispatched with least delay wherever needed and the command officer kept continually appraised of the available equipment and personnel, was an asset. Operating with volunteers, however, these parked reserves should be under constant control, ready to go into action. If necessary, sleeping and other comfort accommodations should be provided.

10. Training of fire fighters in first aid, rescue, and in the kind of large-scale operations which they may be called upon to perform in a major disaster (such as relays, use of improvised water supplies, and so on) pays dividends when the crisis comes. Coming into strange territory, to fight explosions and fires, as these paid and volunteer firemen did, their basic training stood them in good stead. Few fire departments ever have an opportunity to learn good multiple company operations under actual disaster conditions. This is all the more reason why such departments should at least go through the motions of large scale fire control.

11. Fire forces should either have the necessary auxiliary equipment, such as wreckers, ambulances, fuel supply tankers, utility trucks for general purpose work, communications vehicles, or know where they can be secured. Where aiding forces proceed in convoy, the weakest unit may delay the entire convoy. Having the necessary auxiliary equipment at hand may save the convoy—and the day.

12. Hose thread standardization is still a paramount need of this nation. Preplanning for disaster should see that all units of the plan are prepared with the necessary adapters, if they are needed.

(*Continued on page 937*)

Photo by Bunnell

Interior of regulator vault showing two of the regulators.
Picture was taken after water was pumped out and immediate repairs made. View shows only one chamber of three-section vault.

Fire Service Ladders and Their Use—Part XVIII

Ladder Evolutions: Two-Man Flat Raise—Wall Ladder

By ROI B. WOOLLEY

Editor's Ncte: This is the fourth chapter dealing with ladder evolutions. The first, Part XV (August, 1951), discussed the removal of ladders from apparatus, their handling and climbing. Two and four-man carries were pictured and described. The second—Part XVI (September) dealt with the simple one-man raise of the short extension ladder. The third—Part XVII (October), had to do with two-man operations, using the short extension ladder.

The following installment is devoted to the operations of raising and placing the straight wall ladder, using two men.

Readers will find it helpful to study this chapter together with the preceding three parts.

Once again the author makes grateful acknowledgement to the Committee on Firemen's Training, National Fire Protection Association, and the Joint Committee on Evolutions, Fire Department Instructor's Conference — Richard E. Vernor, Chairman, for permission to use the progressive photographs which were taken by H. F. Rothery of the District of Columbia Fire Department. Appreciation is also expressed to the many others whose counsel and advice have been so unselfishly given the author.

FIG. 2

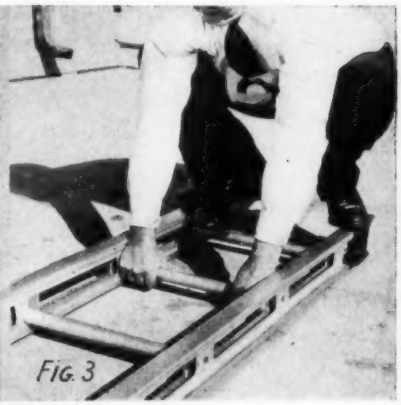


FIG. 3

IN Part XV of this series, the removal of ground ladders from the ladder truck was described and pictured. So, also, was the procedure of carrying such ladders by two and four men. The following month (September, Part XVI told about the simple one-man raise. Last month, Part VII dealt with two men operations, using the short extension ladder.

Reference to these last two installments is made because, in the main, the principles of handling, raising and placing the short ground or wall ladder are almost identical with those described and illustrated in these previous chapters, with the exception that these earlier parts dealt with short extension rather than straight wall ladders.

Thus, in describing the two-man evolution of carrying, raising and placing the wall ladder, Figs. 1, 2 and 3, of Part XV August, 1951 provide the necessary information for the first steps in the handling of this type ladder.

The first step in picking up the straight wall ladder from the ground, after it has been placed parallel with the building against which it is to be raised, is shown in Fig. 1 of last month's (October) installment. Although the evolution shows two men picking up the short *extension ladder,* the procedure of grasping the rungs, picking up the ladder and pivoting under it to reverse direction are identically the same when handling the *straight* wall ladder, whether wood or metal, truss or beam type.

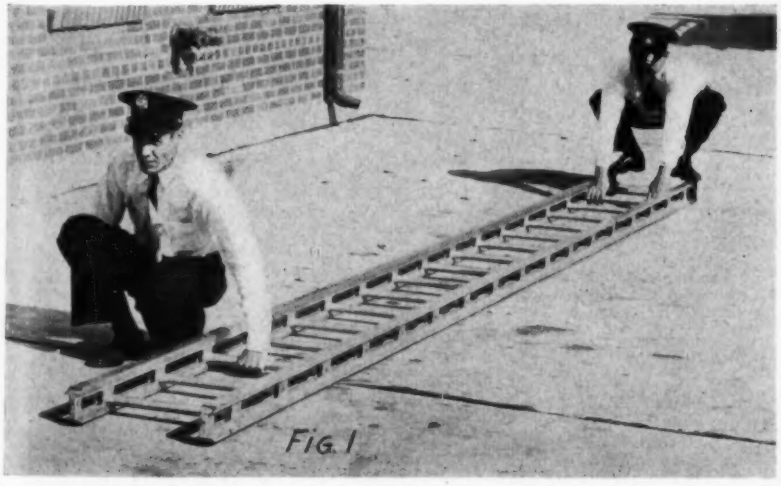


FIG. 1

The ladder[1] has been laid flat on the ground parallel to the building.[2] One man is at the tip or head of the ladder, the other at the butt or heel. The man at the heel, who will butt the ladder, places both feet on the beams, crouching over to grasp the second rung from the bottom. Some departments prefer to have the heel man place feet on the lower rung, with hands grasping the third rung. With certain types of ladders (depending upon the type) there is more opportunity for the butt to slide out or away from the heel man when this practice is followed. The recommended method is the one shown in Fig. 1.

The man at the head of the ladder, who will do the lifting and raising, firmly grasps the third rung with the palm of his hand to the rear. Obviously, the grasp should be at the center of the rung to maintain balance. This grasp is shown, closeup, in Fig. 2 while Fig. 3 shows in more detail the position of hands and feet of the heel or butt man.

In raising the ladder, the man at the head pivots under the near beam, much as was done in the two-man evolution of raising the short extension ladder (Part XVII Fig. 5, October, 1951), while the man on the heel strains backward with his feet as a fulcrum. In Fig. 4 the man at the top end of the ladder is shown completing the pivot, bringing the right hand under to grasp the rung for raising.

[1]The ladder shown in Fig. 1 is the short aluminum type. The same procedure is followed with the truss or beam type.

[2]It is not essential that the ladder to be raised as shown in the accompanying Figures be placed parallel to the building. It may be raised directly against the building, one man butting, and one raising, or it may be raised aganst the building as pictured in Figs. 6, 7 and 8 in Part XVI (September, 1951).

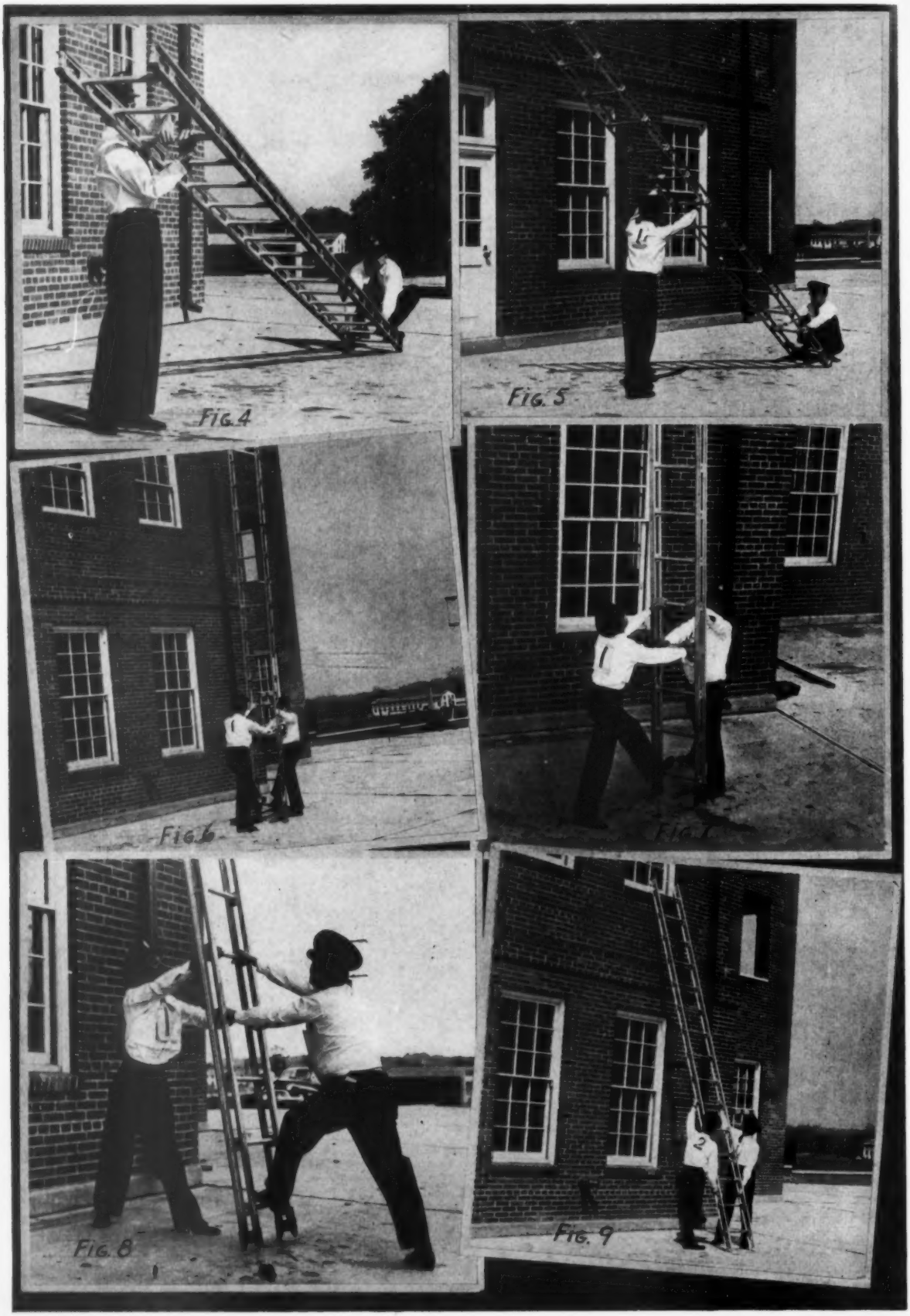


Fig. 4
Fig. 5
Fig. 6
Fig. 7
Fig. 8
Fig. 9

Having pivoted, the man at the head raises ladder, using the rungs as shown in Fig. 5. It will be noted that in lifting, the hands are employed on each rung. Some instructors advocate using every other rung, particularly on the lighter types of ladders, such as the metal model shown. This is a matter of preference. The author recommends the method illustrated.

As the ladder nears vertical position, that is the critical moment when the heel man must shift his grip and stance. Whatever he may do in shifting his body and hands, he must not remove his feet from the rails or beams until the ladder is safely above the point, vertically, where the butt can slip away from the lift man. As quickly as possible both men support the bottom of the ladder by bracing one leg and foot against the bottom rung, as shown in Fig. 6. At the same time, hands grasp different rungs, about shoulder high.

It will be noted the men cross arms and feet in this operation and that the hands are placed on the rungs next to the beams, in other words, the right and left hand of each man grasps a different rung. Thus each man has one hand upon a different rung with the hands spaced as far apart as possible. This is the position before pivoting the ladder to bring it ready for lowering in to the building.

Pivoting is done on the inside beam, that is, the one nearest the building or surface against which the ladder is to be placed. The heel man removes his foot from the lower rung but retains his grasp upon the two upper rungs, as does the lift or beam man. The latter also keeps his foot against the lower rung, alongside the grounded beam on which the ladder is to pivot, to prevent slipping of the single beam. Both men watch the top of the ladder. The beginning of the pivot is pictured in Fig. 7. In this illustration the ladder is tilted slightly on one beam sufficiently to bring the other beam off the ground.

After the ladder has been pivoted and is still vertical, the lift or beam man will be on the inside of the ladder, with back toward the wall, while the heel or butt man will be on the outside, away from the building. The heel man has removed his foot from the bottom rung, and the butt man has placed his foot on that rung, to steady the ladder in lowering it into the building. Both men still have their grasp on the rungs, at shoulder height, as shown in Fig. 8. The ladder is then lowered into the wall with the inside man (lift man) taking most of its weight to prevent slamming it. The outside man controls the action in this operation.

Information on placing wall ladders is contained in Part XI of this series. Care must naturally be taken in setting in a ladder to see that it does not meet obstructions, or break windows unnecessarily. Furthermore, that it be placed to best serve the needs of rescue or other operations for which it is intended.

After it is raised to the vertical and lowered in to the building, if it is not at the proper angle, the ladder may be adjusted to bring the heel the correct distance from the building (1/5th, the length of the ladder plus two feet, or approximately one-fourth the length of the ladder). This last step is shown in Fig. 9. Where the trussed wood ladder is used, some departments prefer to have men grasp ladder rung—usually the third from the bottom, instead of the rails as shown in Fig. 4.

Eastern Association Board Meets

The Board of Directors of the Eastern Association of Fire Chiefs met at the Hotel Martinique, on Sept. 28, primarily to prepare plans for the 1952 convention and transact timely association business. President Herbert A. Friede presided over the meeting.

The Board voted to make assistant and deputy chiefs eligible for active membership in the Association. Active participation in the purchase of Baby Bonds was urged, and some progress in their sales was reported.

An amendment to the Constitution and By-Laws would make the annual dues for both active and associate members $2.00. Members desiring to join the International by virtue of membership in the Eastern will pay an additional $5.00. The fiscal year of the Eastern will be held January 1 to December 31 of any calendar year. This is to bring the term of membership into line with other divisions of the International.

Committees appointed by the president are: Host Chief and Chairman of the 1952 Convention: Chief Edward C. Dell, Reading, Penn.; Entertainment, Chairman Edward C. Dell; Ladies Committee: Mrs. Charles Stoner, Chairman; Program and Technical Sessions, Fred Shepperd; and Exhibits: Chief Arthur Bilby, Montclair, N. J.

The Board adopted a Resolution strongly urging the member departments to speed their installation of two-way radio and to apply for their own radio frequencies, independent of police or other services.

President Swanson Pays Call on European Fire Services

Chief Rudolph Swanson, president-elect of the International Association of Fire Chiefs, who was designated by the I.A.F.C.'s Board of Directors to attend the British Fire Service Association's annual conference in Hastings, England, on October 3-5 last, has returned home after a whirlwind trip which took him not only to the "Tight Little Isle" but to Sweden and Denmark.

Main objective of the trip, which incidentally is the first one of its type ever authorized by the Board of Directors of the Association, was to inform British and European colleagues about the progress in American fire protection and fire prevention, and in the International Association of Fire Chiefs.

Chief Swanson was feted by British colleagues, after which he paid flying visits to Paris, France, as well as Malmo, Stockholm and Gothenburg, Sweden, and Copenhagen, Denmark, where he received further honors and at the same time promoted the cause of American fire fighters.

Before departing for Europe, President Swanson was given a reception by the Fire Bell Club of New York City, celebrated buff's organization, which was attended by New York's Fire and Police Commissioners, Grumet and Monaghan, city Fire Chief Peter Loftus and other notables. Further plans to have him visit fire forces in the Eastern U. S. A. were cut short by his recall to Jamestown, his home city, to assist in furthering state civil defense programs.

Ohio Fire Chiefs Feted

An old-fashioned fish fry, with freshly caught pickerel the piece dé resistance, was served the 500 and more delegates to the Ohio Fire Chiefs' Association, their friends, and members of the Gorman-Rupp Company of Mansfield, Ohio, when the latter acted as host to the convention, on September 28th, last. The meal was served cafeteria style in the company's new modern North Building.

Following the picnic, the group heard welcoming remarks from J. C. Gorman president and H. E. Rupp, secretary of the host company. Fire Chief Ray Earle, of Massillon, Ohio, association vice-president, responded to the greetings, after which the chiefs toured the factory to inspect the making of the concern's dual fire-fighter pumps.

A fire fighting demonstration was later staged by various fire equipment manufacturers on the athletic field adjoining the Gorman-Rupp plan. A feature of this year's outdoor demonstrations was the raising of a high ladder by two men, using a shorter ladder unit as a "crane." This technique was developed by Mansfield firemen under the direction of Chief L. J. Steele and is reported to be an excellent operation for a short-handed crew.

J. C. Gorman and H. E. Rupp welcome the members of the Ohio Fire Chiefs' Association to the Gorman-Rupp plant for a fish fry during their convention in Mansfield, Ohio. Left to right: Mansfield's Fire Chief L. J. Steele, convention host; H. E. Rupp; Fire Chief Ray Earle of Massillon, Association President, and J. C. Gorman. More than 500 chiefs, guests and Gorman-Rupp employees were served cafeteria style in the company's new North Building.

HEAVY LOSSES INCURRED BY RECENT ARSON-CAUSED FIRES

New York and Cleveland Downtown Fires Kill Three; Loss Nearly 2 Million Dollars

A Staff Report

FIRST degree murder indictments were sought by N. Y. District Attorney Frank S. Hogan against three men held in an arson plot which cost the lives of a City Detective and two members of the arson gang, and which was termed by Asst. District Attorney Alexander Herman as "one of the most atrocious crimes for profit that I ever heard of."

The men are accused of causing an explosion and fire on the night of Sept. 10, last, in a nine-story loft building on West Eighteenth street, Manhattan, near Fifth avenue, which resulted in $1,000,000 damage, although it was designed, police said, only to burn the small clothing firm of Keshner Sportsware, owned by Al Keshner.

The dead are Detective James Dagger, 38, of the Safe and Loft Squad, Moe Shapiro, 70, and Jacob Weiss, 67, the latter two known long-time criminals and part of the arson gang. Keshner is alleged to have confessed hiring Weiss to set fire to the Keshner loft on the fifth floor of the building, which Keshner had insured for $20,000. Weiss reportedly hired Shapiro and a Jake Mayron. Weiss reportedly was to receive $1,500 for the "touch-off".

Detectives of the Safe and Loft Squad had been following the suspects for some time and right up to the time of the explosion did not know their quarry were bent on arson and not safe cracking, as was first believed.

Editor's Note: **Is there an upswing in the number of set fires? Is the number of fires set-for-profit on the increase? Some authorities believe so, a few going so far as to say that for the first time in many years there is a noticeable trend in the number of mercantile and other occupancies which are "selling out to the insurance companies."**

Until official word is received from insurance organizations, fire fighters much rely upon hearsay. Nevertheless, a few outstanding cases of set fires recorded within the past six months do tend to substantiate the contentions of those who claim arson fires are on the increase.

Two of the more important of these fires are described in the following staff report, which is based in part on data received from the New York Fire Department, and from FIRE ENGINEERING correspondents, including William Jerome Daly, New York, and James Sords, of Cleveland.

The day of the tragedy, three detectives, Daggett, Howard Phelan and Francis Shannon saw Keshner, Weiss and Shapiro stop with two cars at a Brooklyn gasoline station and pick up ten packages. These they believed were burglar's tools but actually they were ten five gallon cans of gasoline, which the pair concealed in old paper cartons. The officers trailed the suspects to the loft building. Their quarry picked up Mayron, and all four entered the building. Keshner and Mayron soon came out and were picked up by Detective Phelan, who turned them over to Detective Shannon, while Detective Daggett went into the building. Phelan then followed Daggett to aid him. He barely had reached the fifth floor when a tremendous explosion rocked the building and blew out virtually every window in the street between Fifth and Sixth avenues. Flames immediately shot from the Leshner loft and adjoining work rooms.

Investigators are not certain what happened. It is believed the detectives heard Weiss and Shapiro splashing gasoline around the 50 x 70 foot loft. Keshner is said to have left after the pair started pouring the flammables into a drum in the center of the room. Just how the fumes became ignited is undetermined, but the blast caught Daggett and the other two, killing the detective and Shapiro almost instantly. Weiss was blown down an elevator shaft. Phelan was blown into a wall and groped his way to the street, beating flames out of his clothing. Although severely burned, he will recover. Weiss died later in a hospital.

The first alarm was received by the department at 9:37 P.M., from Box 579, at 18th st. and 6th ave. This brought Eng. 14, 18, 72 and 3; Lad. 12 and 3;

Windows are gone and the street and window sills of this nine-story building in New York are littered with the contents blasted out when gasoline spilled by arsonists exploded, killing two men.

Five gallon containers which were used to transport gasoline to start fire in nine-story building on 18th Street in New York City, September 10.

Chief Williams, Batt. 7, Chief Lynch, Batt. 6; Res. 1; Tower 2 and Chief Broderick, Div. 2.

At 9:44 a second alarm brought Eng. 1, 5, 24 and 16; Lad. 24; Searchlight 1. Changing locations: E 27/18, 21/5, 40/3, 44/16 and 54/1; Lad. 18/3 and 4/24. Responding also were Fire Marshal Scott, Dep. Marshal Gribbon; Borough Chief Conway; Dep. Chief Wright, Fire Patrol; Chaplains Farley and Lissman.

At 9:57 the third alarm was answered by Eng. 26, 33, 30, 13, and 65; Lad. 5; the Rolling Canteen; Chief McMahon, Batt. 3; Fuel Wagon 12; Amb. 1 with Drs. Archer and Blum. Changing location: Eng. 15/33, 32/30 and 53/65; Lad. 20/5. Also responding were Chief of Department, Peter Loftus, Fire Commissioner Grumet, Dep. Chiefs Guinee and McCoy.

The fourth alarm at 10:03 brought Eng. 28, 34, 55, 2 and 31. No ladder. Pressure in the high pressure system was raised 175 lbs. Changing location: Eng. 56/2 and 203/31.

The fifth alarm was struck at 10:19 with the following response: Eng. 7, 11, 17, 23 and 12. No ladder. Changing location: Eng. 209/7, 213/11, 221/17, 35/23 and 205/12. Secretary Lynch also responded.

Chief Loftus said the fire was under control at 1:23 A.M., and at 5:15 A.M. the high pressure system pressure was reduced to normal.

It is interesting to note that, probably for the first time in the history of the department, all the signals after the first alarm were transmitted by radio. The dispatcher in charge at the time was Mr. Redmond; the Radio Operator, Mr. Mahon.

Firemen fought the fire from every vantage point, using heavy streams from the water tower and turret pipes, as well as numerous hand lines, some of which were taken up into the building. Firemen took punishment from the heavy, pungent smoke and fumes given off by burning clothing. A number also suffered cuts from the broken glass which littered the area. Eight firefighters suffered injuries, mostly minor, in the struggle to confine the fire to the building of origin, located in the heart of the high hazard area.

The continual broadcasting of the account of this fire by local radio stations coupled with the movement of the 35 and more units of apparatus, brought crowds of the curious, necessitating the use of extra police.

Arson Fire Endangers Entire Downtown Cleveland

An arsonist very nearly was involved himself when he set a fire in a six story building in downtown Cleveland, on May 12, 1951. He committed arson to cover a theft in the building, but the fire he started spread so rapidly that he was overcome and nearly lost his life before he could be rescued. He hadn't evidently counted upon flammable liquids stored nearby which touched off an explosion and boosted the set fire with such speed that almost the entire upper part and rear of the six story brick structure were aflame by the time the first apparatus arrived on the scene.

A full five-five alarm, plus five additional calls for extra pumpers and men, was sounded to confine the blaze which threatened to spread throughout an entire business block.

Phto by James J. Sords

Cleveland fire started by arsonist.

Cleveland Fire Chief Elmer M. Cain, took charge of operations and, with the heavy complement of the city's fire forces thrown into the struggle, managed to win mastery of the blaze, although the three top floors of the buildings adjoining the flaming structure were ignited by radiant heat.

The location of the fire building, alongside the Pennsylvania Railroad tracks and across from the Railroad Company's freight depot, added to the difficulties of the firemen in operating on the fire, and confining its extension. A number of men suffered minor injuries in the action, which kept the entire force busy for several hours. The worst accident, however, occurred when a ladder truck and pumper collided, throwing the crews of both, eleven men in all, to the street and seriously damaging both rigs. The accident occurred when the truck, which was changing quarters, and the pumper, which was responding to the fire, came together. All firemen were severely injured but fortunately no deaths resulted, although one fire officer had to undergo brain surgery.

Reports do not indicate the ultimate fate of the arsonist.

Coal Fire Ignites Dock

A rather unusual coal-pile fire at a Connecticut plant recently caused $5,000 damage to a waterfront dock. Coal had been piled between the dock and a power house and a small part of the pile slumped over onto the dock. Spontaneous ignition in the coal started a fire which soon involved the underside of the dock planking. Public firemen were summoned promptly, but the fire was hard to reach, and the men fought for two hours before they finally completed extinguishment.

The coal had a higher sulphur content which would make it more likely to ignite spontaneously. The manner in which the pile had run over onto the dock probably permitted air currents to pass up through the coal, which would tend to promote ignition.

Assn. Am. Ry's. News Letter

New York Host to State Firemen

The 79th Annual Convention of the Firemen's Association of the State of New York, held at the Hotel Astor, on August 21, was one of the biggest and busiest in the Association's history. First vice president Charles M. Fales, chairman of the convention committee, opened the sessions and introduced the Hon. Joseph T. Sharkey, Acting City Council President, and Fire Commissioner Joseph Grumet, both of whom welcomed the visiting firemen to the city.

Following numerous addresses by municipal dignitaries, Chairman Fales then turned the gavel over to President Chief Irving Wallach of Pelham, N. Y., who in his annual address reported on the progress made by the Association, which has a membership of over 4,000 fire organizations and members. Incidentally, the total assets and appraised property value of Association holdings is nearly $6 million, making it one of the wealthiest of the state fire organizations.

Albert J. Foley, chairman of the Law Committee, reported on the proposals approved by the Clearing House and presented to the 1951 Legislature. Five of the Bills became law. A budget for the coming year of $196,350.00 was approved.

Paul M. Fisher, Chairman, Resolutions Committee, reported on the resolutions, all of which were adopted. It was voted to hold the 1952 convention in East Rochester, the date to be announced later.

Highspot of the Convention was the vast parade of volunteers, with the New York Fire Department Band and over 100 of its members, down Fifth Avenue. Several thousand marchers, with nearly 300 pieces of equipment drew rounds of applause from the crowds of onlookers.

Over 500 ladies attended the convention and enjoyed the special entertainment. Guests of the Convention besides Commissioner Grumet, included Police Commissioner George Monaghan, Fire Chief Peter Loftus, the New York Fire Department Glee Club and other official department notables.

Lack of Water Hampers Firemen

Fire of undetermined origin destroyed the Town Hall at Weston, Conn., on August 12, causing loss estimated at between $20,000 and $25,000. Valuable records in a fireproof vault were unharmed.

The one-story frame building on Norfield Road, also used as a Grange hall, was discovered in flames by residents of the town returning from a dance. Firemen from Westport and Wilton, as well as Weston, fought the stubborn blaze for three hours, but lack of water hampered their efforts. The supply being nearly a mile away, firemen had to pump water from a swimming pool, 800 feet from the Town hall.

Something new in firemen's attire: Members of Weston, Conn., Fire Department at work on Town Hall fire. Alarm sounded while the fire fighters were attending a costume ball, with the result shown above.

Fire Chief John O'Brien said the cause of the blaze is unknown, but added that it apparently started in the kitchen. The Town Hall, erected in 1884, is located only 50 feet from the Weston fire house, and 75 feet from the Norfield Congregational church. Absence of wind prevented the flames from spreading to these buildings.

As it was, the blaze severed power lines leading to the fire house, and it was impossible to sound the siren calling the volunteer firemen. For that reason many of the volunteer firemen were late arriving on the scene, and some still wore the costumes in which they had attended a dance at the Weston Field Club.

The brilliant red glow in the sky caused by the soaring flames attracted many spectators, some of them also in costume. Firemen directed most of the water on the wing which housed the town clerk's office and the vault. Portions of the walls in this part of the building are all that is left of the Town Hall.

Firemen, under the direction of Fire Chief Harold A. Shippey, of Westport, responded with two pumpers. The Wilton Fire Department, under command of Asst. Chief Carl Anderson, responded with a pumper. TOM MAGNER.

All that remained of Crescent Ballroom when fire was brought under control.

Frame Ballroom Levelled

Crescent Ballroom, popular dancing hall located at Crescent Beach, Niantic, Connecticut, was leveled by a fire of undetermined origin the morning of July 31, 1951.

A delayed alarm and lack of hydrants greatly handicapped the firemen, and the 70 year old building was reduced to smoldering ruins in less than a half hour. The large one-story wooden structure had a floor area of 6000 square feet and could accommodate 1000 dancers.

At 10:14 A.M. fire headquarters in Niantic received the first call for the fire and two pieces of apparatus under the direction of Chief LeGrand Hall and Deputy Chief Robert Gates sped to the scene. Upon arrival, the firemen found the entire interior of the hall a mass of flames, and a radio call was immediately made requesting additional assistance. Apparatus and members from the Flanders, Jordan and Oswegatchie volunteer fire departments, headed by Chief Lawrence Fraser, Chief Thurston Howard and Deputy Chief Edwin Perry, respectively, responded to the call for mutual aid.

The nearest available water supply was 3,500 feet away, and while a 2½" line was being laid, booster lines were used to wet down the seriously threatened nearby homes. The terrific heat blistered paint on several houses but determined efforts on behalf of the firefighters prevented any further damage.

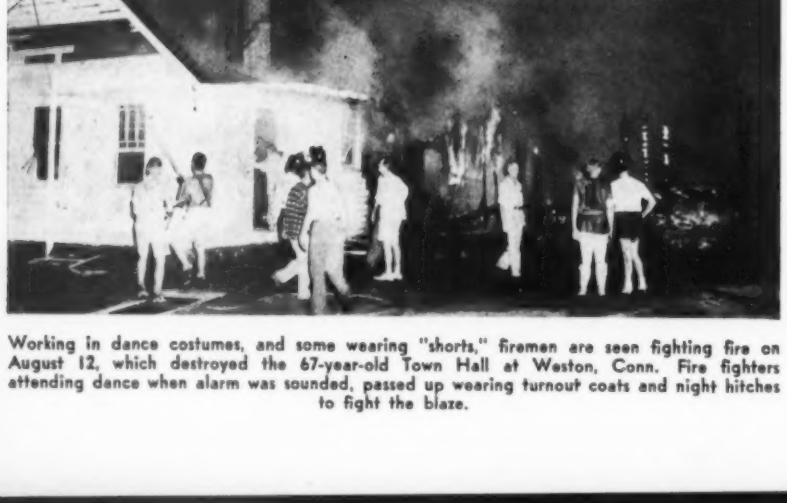
Four pumpers were used to relay the water, and three 1½" lines were used to wet down the surrounding property and to eventually wet down the burning ruins.

A group of boys, trained as auxiliary firemen under the civilian defense program in Niantic, rendered valuable assistance at the fire.

An investigation into the cause of the blaze was ordered by East Lyme Fire Marshal Joseph G. Bisbee but to date the findings of this probe have not been made public.

Loss has been estimated at $35,000.

WILLIAM C. PECK.



Working in dance costumes, and some wearing "shorts," firemen are seen fighting fire on August 12, which destroyed the 67-year-old Town Hall at Weston, Conn. Fire fighters attending dance when alarm was sounded, passed up wearing turnout coats and night hitches to fight the blaze.

Fire Department Instructors Conference January 8-11

The dates for Fire Department Instructors' Conference held for the past decade and more in Memphis, Tenn., have been changed, according to an announcement released by Dick Vernor, Chairman, to be the week including January 8-11, 1952, in order to insure proper hotel facilities, and the use of the vast Memphis auditorium.

The 1951 Signalmen's Convention is welcomed to San Francisco by Mayor E. L. Robinson.

Signalmen Meet in San Francisco

The 56th Annual Meeting of the International Municipal Signal Association was held in San Francisco, September 17-20, with headquarters at the Mark Hopkins Hotel. The large attendance included many fire officials from the West Coast and other sections of the nation.

The conference was opened by President Dan C. Wallace, Supt. of Electricity, Berkeley, Calif. Mayor Elmer E. Robinson, San Francisco, welcomed the guests to the city. General Convention Chairman, L. H. Soare, Supt., Dept. of Electricity, Oakland, introduced city officials and distinguished guests.

Much of the excellent technical program, directed by K. V. Keeley, Fire & Police Communications, Los Angeles, was given over to Civil Defense and Emergency Communications. The first day's speakers and topics included the following: Col. M. Talbot, Dir. Warning & Communications, Federal Civil Defense Agency, Washington, spoke on "Civil Defense Warnings and Communications"; Deputy Fire Chief Thomas O'Brien, in Charge, Bureau of Fire Alarm Telegraph, New York Fire Department, and a member of the Communications Committee, International Association of Fire Chiefs took for his topic "A Description of the New York City Warning System"; Folger M. Smith, Federal Enterprises, Inc., discussed "Methods of Predicting Warning System Coverage," and the subject of the paper by Thomas Perry, H.O.R. Company, Inc., was "Air Raid Warning Systems." Panel observers of the initial session included Herbert Raines, Engineer, National Board of Fire Underwriters; Thomas Kelly, Office of C. D., State of California; Rear Adm. A. C. Cook (Ret.), Director, Disaster Council & Corps, City and County of San Francisco. The Moderator was Chief Thomas O'Brien.

Moderator of the afternoon session was Ray Myers, Engineer, California Civil Defense, with Bill Whiting, Radio Engineer, Kern County, Calif., as observer. The program included: Tom Kelly, Calif. Off. Civil Defense whose topic was "Needs of Civil Defense Communications"; Col. Edwin F. White, Federal Communications Commission, who talked on the "Application of Frequencies Assigned to Civil Defense Purposes"; Roy Jordan of the General Electric Company, Syracuse, N. Y., whose subject was "Communications Systems for Civil Defense" and Ed Denstaedt, Chm. Radio Frequency Allocation Committee, I.M.S.A., who read a "Report on Allocations of Fire Radio Frequencies."

Wednesday afternoon's session was devoted to municipal fire alarms, with speakers and topics as follows: Herbert Raines, N.B.F.U., covering the subject "Specific Reasons Why Fire Alarm Boxes are Needed"; Hugh T. Smith, Jr., Superior American Fire Alarm & Signal Co., whose topic was "Fire Alarm Systems are Economically Available to all Cities"; A. L. Johnson, Gamewell Company, who discussed "The Reliability of Fire Alarm Telegraph Methods" and Chief P. C. Pifer, Bakersfield, Calif., whose paper was "A Class 1 Fire Alarm System Pays Off." Panel observer and Moderator was Al Theurich, Fire Alarm Supt., Pasadena, Calif. (Ret.).

During the conference, special entertainment was provided for the ladies. The banquet on Wednesday night was held in the Fairmont Hotel. Many of the manufacturers of fire alarm and other signal equipment had exhibits and staged entertainment and awarded prizes to the delegates.

The officers elected to direct the Association's activities for the coming year are: President: Joseph A. Geiger, Supt., Fire & Police Alarms, Bayonne, N. J.; 1st Vice President, Leo P. Landry, Supt. Wires, Watertown, Mass.; 2nd Vice President, John Carter, Chief Eng. Signal Bureau, Jacksonville, Fla.; 3rd Vice President, S. W. Wilkinson, City Electrician, Houston, Tex.; Treasurer, Charles S. Downs, City Elec. Consultant, Altoona, Pa. and Secretary, Irving Shulsinger, New York.

San Diego Has New Fire Station

San Diego's newest fire station was officially opened August 10, 1951, the opening also inaugurating the formation of a new battalion district for the department.

Dedication ceremonies arranged by Fire Chief George E. Courser were attended by Mayor J. D. Butler, City Councilmen, City Manager O. W. Campbell, various other city officials, business leaders, fire chiefs from neighboring cities, and members of the Fire Department and their families.

The 48 ft. x 95 ft. structure replaces a two story wooden fire station built early in the century. It is of concrete block construction and cost $53,000.00 Designed to accommodate an engine company, ladder company and battalion chief's car, it protects a combined business and residential district, and is headquarters for the Second Battalion. San Diego is now divided into four battalions.

Sleeping quarters, lavatories, showers, and lockers are situated to the right of the entrance doors. Battalion Chief's quarters, kitchen, study and recreation rooms are to the left.

The tower, in which hose is stowed at the extreme right, is expressly designed to conform with the architecture of the rest of the building. It extends twenty-four feet above grade level and eight feet below it. This combination of above and below ground construction reportedly makes for ease and efficiency in handling hose, resulting in a useful as well as an inconspicuous hose tower.

Coals to Newcastle

Jim Schwartz, veteran photographer for the Bridgeport, Conn., Post, has covered many fires in his newspaper career. Shortly before noon on August 13, he had a ringside spot at another blaze, that in his own auto. As Jim started his new auto in front of the Post Publishing Company's building on State Street, smoke began to pour from the motor. He rescued his photographic equipment and then dashed into the newspaper office, calling to the telephone operator to 'phone Fire Headquarters.

Returning to his car, Jim opened the hood and was greeted by puffs of smoke. Fire apparatus arrived in a few minutes but the "blaze" was out. Damage consisted of burned out wiring. Jim remembered his professional duty. He snapped a picture of a firefighter peering under the hood of the car.

TOM MAGNER

San Diego's new fire station.

Danville Firemen Fight Smoky Five-Hour Print Shop Fire

The second costly fire within a month gave the Danville, Ill., Fire Department, under Chief Rindt (who only assumed command of the organization two months before), a punishing fight on Sept. 4 last.

The property involved was the Letter Shop Press building located at 16 W. Madison street, a one-story and basement brick structure, surrounded on three sides by hotels and apartment houses three and four stories in height. The building contained large quantities of paper stock, reported about 200 tons in all, ink and other combustibles. There were also two 275-gallon fuel tanks partially filled.

The fire is believed to have originated in a recently installed oil burner, which had been lighted to "take the chill off." Employes of the firm during the lunch hour noticed smoke emerging from the basement stairway and turned in the alarm. This was received at 12:15 P.M. Engines 1, 3, 5, and the aerial ladder responded with Chief Rindt in charge.

Firemen were met by heavy volumes of smoke and heat, making entrance into the building impossible except by men equipped with masks. Lieut. John Cass, and crew of Engine 1 with a line, endeavored to work their way to the basement by means of the stairway but heat and smoke drove them back. Their line was also only partially effective because of the partitioning of the basement area, and the heavy stocks.

Other crews endeavored to get at the fire at the front of the building, with equally poor results. Meanwhile fire spread, feeding on the combustible contents, and working through the partitions, and between the joists.

Chief Rindt, following a size-up, called in the off-shift men, and additional lines were stretched in to bracket the blaze. The aerial ladder was raised to cover the roof, and cellar pipes were brought into play at the street level. The high humidity and wind, which came in fitful spurts, covered the fire ground and the entire northwest section of the city with a choking pall of smoke.

As the fire spread upward, it worked into the ceiling area to increase the fire fighters' troubles. The ceiling was covered with an acoustical material and the sections between it and the roof were filled with insulation.

After three hours of punishment, during which several firemen were injured or suffered smoke poisoning, the blaze was considered under control. The bulk of the companies were returned to quarters, leaving Engine 1 with a watch crew, to de-water the basement. This company returned to quarters about 10:30 P.M.

Danville's new rescue unit was called during the early stages of the fire to treat fire fighters. Captains Bill Shank and Stricklin were injured by flying glass, Shank receiving a lacerated back and Stricklin, a cut eye. Lieut. McClain was treated the following morning at a local hospital for smoke inhalation.

The loss was estimated at $100,000. Much of the costly printing equipment within the building was salvaged, including some paper stock. Loss on the latter was heavy, however, the piles swollen by the water pushing up the floor.

JOHN A. GRANT.

Fabric Fire Hose Co. Fetes Old Employees

Seven employees of the Fabric Fire Hose Company, of Sandy Hook, Conn., were honored on October 23 at a company dinner for over 40 years service. The oldest employee, in point of service, Elizabeth H. Keane, received an award for 50 years with the company. In the above photo are, left to right, Robert E. Ehrhardt, company treasurer; Walter G. McCarthy, factory manager; Mrs. Keane; Charles S. Cole, president; and Ernest G. Brown, vice-president and general manager of the mechanical goods division of U. S. Rubber Company.—TOM MAGNER.

President Swanson Honored by Canadian and Swedish Officials

Jamestown has learned by now that its fire chief is President of the I.A.F.C. and truly an "international" figure. On September 4, Ontario Province Fire Marshal William J. Scott, brought two distinguished visitors, Ake Sundelin, Director General of Civil Defense for Sweden, and his assistant, Ivar Miller, to Jamestown, to honor Chief Swanson at a luncheon, which was also attended by leading local business men and industrialists. Chief Swanson is shown in dark suit, at the head of the table, with Mr. Miller to left of Chief Swanson, and Mr. Sundelin at far end of table in bow tie. Marshal Scott is in center of table (left), with D. E. Barrett, of the Marshal's Office, at his left.

N.P.A. Aids Amateur Radio Operators to Get Materials

Under order dated Oct. 4, 1951, the U.S. Department of Commerce, National Production authority, provides assistance "to amateur radio operators and active members of the Civil Air Patrol" in obtaining materials for the maintenance and repair of their radio stations and stations used by the Civil Air Patrol, for capital additions to such stations, and for new stations. It makes special provision for those operators who are members of emergency radio communications networks. It assigns to each operator a quota within the limits of which he may use a symbol or rating to obtain materials, and allows operators to combine their quotas in making purchases within the provisions of the order.

Baltimore Gets New Radio

The Board of Estimate of Baltimore, Md., on Sept. 5th, authorized purchase of the first units of a two-way, static-free radio system for the fire department.

Two base stations and sixteen mobile units will be purchased and 68 more mobile units will be bought in 1952 to extend the radio service to all first-line equipment.

One FM base station will be located atop the Mathieson building, the other base station will be at a fire house at Liberty Heights and Woodbrook avenue in keeping with the civil defense plan of dispersing communications equipment.

With the two-way system, personnel on apparatus will be able to communicate with the base station but not with other apparatus. They will receive on one frequency and transmit on another.

IRVING JOHNSON

News of the Manufacturers

American-La France Elects New Officers

George R. Hanks of Clinton, N. J., was elected president of the American-La-France-Foamite Corporation on October 24. He succeeds Edward E. O'Neill of Elmira, who is relinquishing the presidency because of ill health.

George R. Hanks

Mr. O'Neill, who has been ill for some time and is a patient at St. Joseph's Hospital, Elmira, will remain with the company as a director.

Mr. Hanks has been a company director for several years, and since November, 1950, has served as chairman of the executive committee in charge of company operations.

Wilfred M. Price of Elmira was elected executive vice president. Mr. Price will continue in direct charge of engineering, manufacturing and procurement and inventory control.

A company announcement also said that Edward D. Herrick has resigned as an officer and director, effective Oct. 10.

Other personnel changes include the appointment of Alexander G. Long as vice president in charge of manufacturing. Francis A. Rauh has been made factory manager and Bernard Smith has been named plant superintendent. Charles A. Emerich has been placed in charge of procurement and inventory control.

A native Pennsylvanian, Mr. Hanks was born in McConnellsburg and brought up at Chambersburg. He attended the Pierce School of Business Administration at Philadelphia and after completing that course worked for several years at what is now the Philadelphia National Bank.

He continued his education at Mercersburg Academy and Princeton University, graduating from the latter in 1915 as a civil engineer.

In August, 1915, Mr. Hanks was employed by the Taylor-Wharton Iron & Steel Co., of High Bridge, N. J. In 1929 he became president of that company. He continued as its chief executive for 21 years and now is chairman of the executive committee.

Mr. Hanks was president of the Linn Manufacturing Company at Morris, N. Y., for several years. (The Linn Manufacturing Company was a subsidiary of Alfco until sold a few years ago.)

He is a member of the American Society of Mechanical Engineers, the American Institute of Mining and Metallurgical Engineers, and the American Ordnance Association.

Mr. Price joined the Foamite Childs Company at Utica, N. Y., in 1927 as a cadet engineer. He served that company and, after the consolidation, the present company in New York, Cleveland and Detroit in an engineering and sales capacity. He went to Elmira in 1930.

Mr. Price later became sales promotional manager and still later, assistant to the president. He was elected vice president and a director of the company in 1946.

Wilfred M. Price

Mr. O'Neill had been president of Alfco since November, 1939.

Before becoming ill he was active in many local community, civic and industrial activities.

He was born in Denver, Colo., and after receiving his education in public schools, became a salesman for a real estate concern.

In this work he realized the need and importance of fire protection and made selling contacts in that field which led to his successful career.

In the field of manufacturing fire fighting equipment he rose from salesman to manager, district manager, general sales manager, vice president and finally president.

At Cleveland, in 1918, he organized the Firefoam Company, of which he was vice president and general manager.

After a series of consolidations of companies, he was named Cleveland district manager of Alfco in 1927. He came to Elmira in 1931 upon being named general sales manager of the fire protection equipment division.

A series of promotions were climaxed by his elevation to the president eight years later.

New Hose Drying Cabinet

A new hose drying cabinet has just been announced by Hall's Industries, and distribution of the unit will be by The Neep Equipment Company, of 326 N. W. Broadway, Portland 9, Ore.

Two designs of the unit are offered. In one, the hose is stored in removable shelves; in the other, on reels (ten of them) mounted one above the other on a vertical center post. The latter is mounted on an angle iron base fitted with four casters. All reels revolve as a unit, and each is fitted with a pin for attaching the male or female couplings. Base of center post is fitted with a special type bearing.

Dimensions of cabinet are: 4 x 4 feet square, and 6 feet 6 inches high. Weight of unit crated is approximately 1,100 pounds.

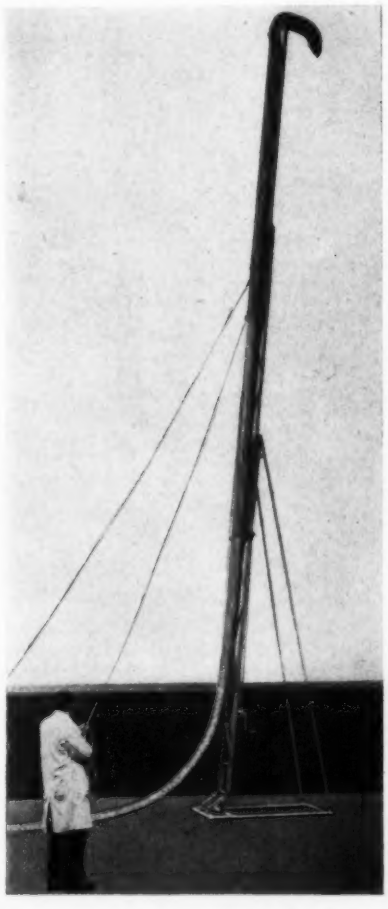
Each of the two types of cabinets has a capacity for 500 feet of 2½-inch double jacket hose, or 1,000 feet of 1½-inch double jacket hose.

Heating is provided in each case by two 3100-watt elements, 200 volt, 60 cycle. Each unit is equipped with electric fan driven by squirrel cage motor; and two special thermostats are provided as regular equipment.

New Telescoping Tilting Foam Tower Announced

An entirely new portable device for discharging fire-smothering foam into a burning oil tank has been announced by Pyrene Manufacturing Company, Newark, New Jersey. This equipment, called a Pyrene Foam Tower, claims the advantages of mobility over rough terrain, ease and speed of erection by three or four men and efficient delivery of large volumes of foam onto tanks up to 50 feet in height.

This equipment is assembled in two sections—a base with screw-tilting gear mechanism and four spikes for use in case of rough ground; and a telescoped 20-foot, three-section tower with manual winch, two swivel-jointed push poles and stainless steel guy ropes. A six-inch foam column ends in a heat-resist-



Foam tower elevated and extended to 40 feet. Guy ropes, held by two men, provide lateral support during extending. Foam flows through 6-inch hose line coupled to base of foam column.

ant stainless steel discharge head.

The tower is made principally of aluminum and weighs 475 pounds complete, and is easily carried manually or on a small truck.

It may be assembled, erected and be delivering foam in a few minutes. A built-in or a forcing-type foam maker with water capacity of 300 gpm makes 2,000 to 3,000 gpm of air foam.

The tilting mechanism simplifies the application of foam for, with the base in a stationary position, the discharge head can be moved forward 3 to 5 feet over the tank edge to discharge foam against the inner side of the tank.

The manufacturers recommend this equipment for the protection of storage tanks in an area where fixed foam systems are not installed or where such systems may have been damaged by explosion. Such protection is required for floating roof tanks which do not usually have system protection.

Norfolk Modernizes Communications Systems

The Norfolk, Va., Fire and Police Departments have completed modernization of their communications systems, including the installation of 46 new F.M. 2-way radios for cars and trucks and 20 2-way radios for motorcycles.

This marks a complete switchover of the system from amplitude modulated (A.M.) equipment to static-free frequency modulated (F.M.) gear, and the instigation of a 2-way radio communications system that ranks among the best in the country.

Communications in the fire and police departments are now on two separate frequencies, allowing the departments to operate without interference to each other. Previously, one frequency was used for both systems and for both receiving and transmitting. With the fire department system separate from the police department network, a much smoother and efficient operation results.

Fire Chief R. L. Woolard has reported that a much higher degree of efficiency can be noted since the installation of new Motorola F.M. radios with an individual base station transmitter operating on an assigned frequency allotted for the fire division.

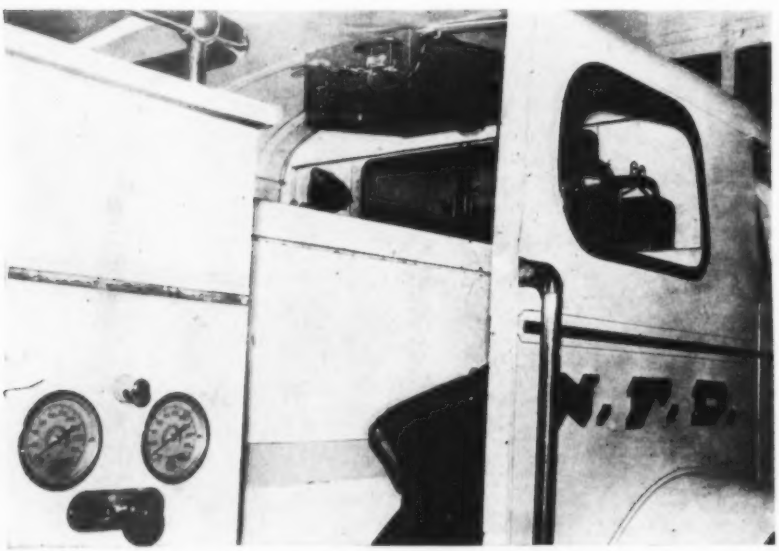
He reported that these modern features play a major part in fire prevention, reduced fire losses, and conservation of the city's apparatus.

The first fire company to answer a call can usually determine requirements immediately for additional assistance and equipment. If the fire is minor and other fire fighting units are not needed, the new F.M. system notifies them to turn back to quarters, thereby conserving expensive apparatus.

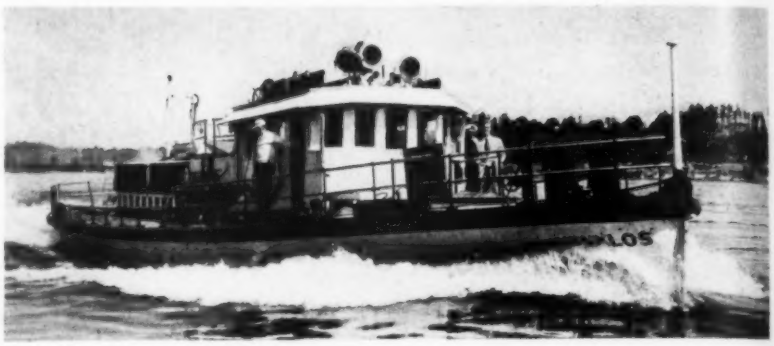
In the old system, 46 2-way cars and trucks in both departments all operated on a single A.M. frequency, and 21 motorcycles were equipped with receivers only.

The new central dispatching office includes two Motorola 250-watt base stations, one for the fire department, one for the police department.

Although all the equipment is now simplex operated, within each system all radio equipment is designed for change-over to duplex-type operation at any time with minor changes in the equipment.



A unique mobile radio installation is this 30-watt F.M. 2-way radio hung in an out-of-the-way location in the roof of a Norfolk fire truck. It is one of the 46 vehicles in the Norfolk Fire and Police Departments that have recently been equipped with 2-way radios.



Portland, Oregon's rehabilitated fireboat on trial run.

New Engines Improve Portland's Fireboat

Powered by new twin 600 h.p. marine propulsion units, Portland Oregon's Fireboat No. 1, the "Mike Laudenklos", turned in a flashy performance on her trial run down the Willamette. Fire Master Mechanic Nels Woods claims, "You wouldn't know it was the same boat!"

Lighter in weight, with increased power, 100% reversability, and many other modern features, the new Hall-Scott twins give the "Mike Laudenklos" greatly increased maneuverability, speed, and responsiveness. They were installed by Gunderson Brothers Engineering Corporation, who also removed the old 565 h.p. engines which had served since January of 1928, when the 86 foot fireboat was commissioned.

Installation of the new egnines is the first step in a modernization program expected to put Portland's waterfront fire-fighting equipment in top condition.

Both the new V-12 engines are equipped with front and power takeoffs for driving pumps with a capacity of 2600 gallons per minute. Weight per unit is 2000 pounds less than the old engines, a total of two tons less in the hull. As a consequence, the boat rides much higher in the water, a big factor in its improved maneuverability, it is reported.

The "Mike Laudenklos" was named after a popular Assistant Fire Chief who served Portland from 1890 to 1924.

Noma Develops Safety Feature for Tree Lighting Sets

The Noma safety fuse plug is an important new development in Christmas lighting. Two easily replaced, five ampere, 125 volt, cartridge type fuses in the plug guard against overloads and accidental short circuits.

Should a short circuit occur because of an overload or for other reasons, the safety plug prevents the short from reaching the household lighting circuit.

Sets equipped with this feature offer the same protection for old strings of lights when the safety plug set is connected directly to the outlet.

The safety fuse plug is used on all Noma multiple burning indoor and outdoor lighting sets. Safety engineers, fire marshals and fire underwriting companies recognize the Noma safety fuse plug as a contribution to safety in the home.

(*Continued on page* 940)

Sturdy front-line weapon...

When you're slugging it out at close quarters . . . when you need all the pressure you can get—you're in luck if you have Eureka Hose, because its—

BALANCED-WEAVE CONSTRUCTION, in both multiple-woven and double-jacket hose, eliminates dangerous writhing and twisting under high pressures.

SMOOTH-INTERIOR FILLER PLY prevents "washboarding" of rubber lining, reduces friction loss so that you get better nozzle pressure without increase in pump pressure.

BOMB-TESTED RUBBER LINING guarantees longer wear.

MILDEW-PROOFING: Double-jacket hose can be furnished antiseptically treated or wax and gum treated to prevent mildew and rot.

EUREKA

"For greater protection to life and property"

EUREKA FIRE HOSE

Since 1875, Specialists in Manufacturing Circular-Woven Cotton Rubber-Lined Fire Hose

195 Hudson Street • New York 13, N. Y.

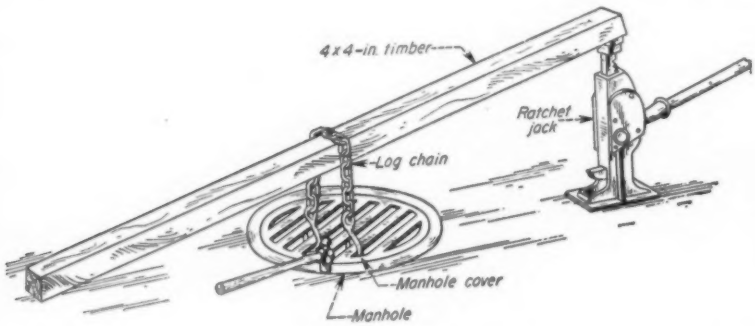
Division of United States Rubber Company

We shall appreciate your mentioning FIRE ENGINEERING *when writing advertisers*

Short Cuts and Gadgets

IDEA FOR THE RESCUE COMPANY

Every so often municipal firemen are confronted with the need of removing manhole or drain covers. Utility companies have special tools to do this job but their crews may not be handy at the moment of emergency. Nor do most fire rigs carry any particular implement that will readily remove such balky covers.



The publication *Power*, published by the McGraw-Hill Pub. Co., in its September, 1951, issue, contained a suggestion that might prove a "short cut" for members of the fire service. The picture tells most of the story. It shows a ratchet jack, a piece of timber about 4 x 4 in., and a piece of log-chain. Doubtless heavy wire would serve instead of chain if some is not procurable immediately, just as there is no particular restriction on the kind of wood used as the lever. An auto jack should suffice for the lift power.

It may be well to tap the manhole or drain cover frame with a hammer as the strain increases. Then take up slack, and tap again. It is suggested that the hooks be placed near the edge of the cover to reduce the strain on the web of the cover.

* * *

The Old Timer Says—

An American inventor once proposed that firecrackers should be suspended in all rooms and passages in dwelling houses so that in the event of fire breaking out at night the sleeping inmates would be awakened by the noise of the crackers "going off."

He forgot to figger out a way to keep the "inmates" alive from suffocation while waiting for the crackers to crack.

* * *

GIVE THE GATE A GLAD HAND!

Perhaps some of us haven't been exploring the possibilities of the good old hydrant gate. At least that thought pops up when we anlyze the suggested short-cut sent in by diligent reader, of Rochester, N. Y.

His suggestion, he writes, may or may not prove of value to the fire service but he hopes so. We know it is not particular original, but it is worth passing on if only as a reminder to our readers.

Quite a few dump, grass, rubbish and woods fires call for long layouts of 2½ or 1½-inch hose. After the line has been stretched, it is sometimes necessary to move the nozzle to another point, or for some other reason to shut down the line. This usually means detailing a man to return to the hydrant or pump, to get action—sometimes quite a distance.

Brother Lee's suggestion is to place a hydrant gate valve two or three lengths behind the nozzle (depending of course upon the length of the 'stretch' and the ground layout over which it is made). In this way the line can be shut down to allow the nozzle to be moved, or for any other reason, without having to travel all the way back to the source of the water supply.

Where the line is stretched up a bank or grade, or down a gully or declivity, the same principle can be used. In this case, the gate is applied to the line at the top of the bank. Having a man stationed at this gate can mean a lot to the men at the nozzle. It any time the 'pipemen' want to change location, all they have to do is to signal the 'gateman' for a shutoff until they make their move, or the need for the shutdown is removed. This way they save time, dispense with having to "wrestle" a charged line around with possible injury to men.

* * *

The Old Timer Says—

It looks like good practice to me to insist that every fireman be equipped with a convenient flash light—and that it shall be right at hand—in good working order. Expenditure of a few cents, and insistence in the R & R on the carrying and use of such a handy 'tool' would have saved the lives of a number of firemen, and citizens.

* * *

SIMPLIFYING "PAPER WORK" OF VOL'S

Record keeping is always a bother in any fire department. It is particularly troublesome among the volunteer companies where record may have to be written up in the field, and often at night.

The editors have had many requests for simplified paper forms to facilitate fire department record keeping and have located a number of different forms, one of which is worthy of passing along to our good friends. This is used by the Saranac Lake Fire Department of Saranac Lake, N. Y., and was suggested by Captain H. Smith of that unit.

Captain Smith claims this form, which is a buff colored card measuring 8½ x 11-in. flat (letterhead size) printed in black ink on one side, is used successfully in keeping account of the men attending fires and it also becomes an accurate record of the essential facts about fires, the use of equipment, hose stretched, etc.

The driver, who keeps this record, uses an ordinary paper punch, to facilitate his work, which is carried in the compartment of the apparatus. He punches the card before or after each man's name listed on the form. The officer in charge fills in the center section of the card (giving the fire data) and then the card is filed at the fire house. At the end of the year the data are drawn off and consolidated in an annual report of the operations of the whole fire department for that year.

Alheim, Alfred
Baker, H. A.
Bell, J. Roy
Boon, E. L.
Bourne, L. O.
Boyer, Homer
Boynton, Harland
Case, Leo
Clark, Donald L.
Collins, Patrick
Currier, Willis H.
Daley, Thomas A.
Disco, Frank
Disco, William
Douglas, Alfred
Duquette, Arthur
Ferrari, Jack
Flagg, Monroe
Flagg, Morlin
Fortune, Andrew
Gouthier, Roy
Gladd, Monroe
Harrington, Richard
Luman Raymond
Maple, Leo
McPherson, Maurice
Miller, Harry

No. .....

FIRE REPORT

SARANAC LAKE - FIRE DEPARTMENT

Date .....

Time Called ..... M

Time Returned ..... M

Location { Name ..... Street .....

Officer in Charge .....

Driver Truck No. 1 .....

Driver Truck No. 2 .....

Driver Truck No. 3 .....

Box ..... Telephone .....

Firemen Present .....

Chemicals Used ..... Gals.

Booster ..... Gals.

Hose Lines Laid ..... Feet

Cause of Fire .....

.....

Approximate Damage .....

.....

Signed .....

Mullin, John
Munn, M. M.
Murphy, Joseph
Myers, Dean
Ormsby, Richard
Paye, Louis
Pratt, Gilbert
Proctor, Cyril
Ross, Donald
Ryan, Donald
Smith, Carl H.
Smith, Clarence L.
Sheldon, Howard
Thompson, Leon
Vosburgh, Gordon
Walsh, Donald
Wamsgans, Vernon
White, David
Whitman, Wilbur
Wilkins, Harold
Willette, P. W.
Witherbee, Ralph
Wood, Guy

Now! Fenwal

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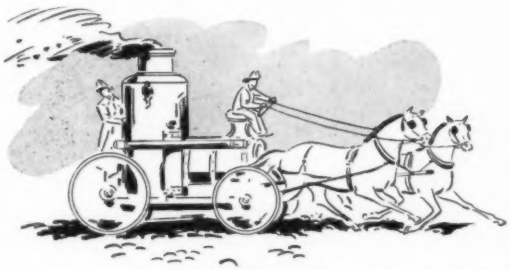

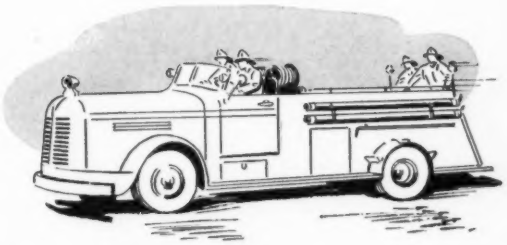

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Why risk *lives* and costly property replacement due to undetected fires? With unique, DETECT-A-FIRE units you do away with time lag, false alarms. Based on a new rate-compensation principle of fire detection, these units respond *only* when the temperature of the surrounding air reaches predetermined danger level. Recommended for plants, ships, institutions, commercial, mercantile, and public buildings. Listed by (UL). Approved by (FM) — U. S. Coast Guard.

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Temperature Control Engineers

FALSE ALARMS

Retort

A wolf, sitting in a fashionable restaurant, snapped to attention when an attractive young lady passed by. He tried a standard pass: "Excuse me, but surely you're not dining alone?" and got nothing in return but a frigid glance. His vanity stung, he remarked sarcastically, "I'm sorry, I thought you were my mother."

"I couldn't be," came the icy retort, "I'm married."

Displaying her wedding gifts, the bride came to one from the groom's Army buddy. "I just adore these personalized gifts," she said. "We received towels and washcloths with HIS and HERS on them, but," she blushed, "this is even more personal."

And she held up an olive-drab blanket with the letters US stamped in the middle.

When Mrs. O'Kantor sued for a divorce from her husband, the judge reminded her that she had married him for life.

"I know, judge," she said, "but I found out he didn't have any."

Two casual acquaintances were walking toward the green when they sighted two women coming over the hill.

First Golfer: "I say, here comes my wife with some old hag she's picked up somewhere."

"Poor Mac! He Certainly Has a Jealous Wife!"

"Anytime I've Had a Gal Like That to Rescue, She's Lived on the Ground Floor!"

Other (icily): "And here comes mine with another."

A Sure Way

Two farmers at a county fair were fascinated by a booth where little celluloid balls bobbed on top of water jets. Customers were offered substantial prizes if they succeeded in shooting any one of the balls off its perch. One of the farmers spent six quarters in a vain attempt to pick off one ball. Finally his friend pushed him aside and picked up the rifle.

"Watch how I do it, "he said.

He took a single shot. All six balls disappeared.

As they walked away from the booth laden with prizes, the unsuccessful one marveled.

"How did you ever do it,' he asked.

"It just took knowing how," explained the winner. "I shot the man who was working the pump."

"Corporal, where did you get that black eye?"

"In the war."

"What war?"

"The boudoir.'

If your wife is away on a holiday and you want to get her home in a hurry, just send her a copy of the local paper with one item clipped out.

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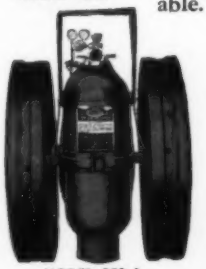
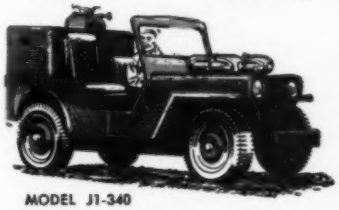

MODEL 350-A


MODEL J1-340

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You, who have seen or used an Ansul Dry Chemical Extinguisher at a fire demonstration or on an actual fire, quickly recognized its superior fire-fighting capabilities. Further investigation proves that Ansul "Water-tight Construction" provides greater dependability under severe exposure conditions.

Fire Chiefs, insurance inspectors, safety engineers, etc. recognize Ansul as the leader in the dry chemical fire extinguisher field. Ansul Fire Extinguishing Equipment and *"PLUS-FIFTY"* Dry Chemical have set unparalleled standards of quality for the fire extinguisher industry.

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Safeguard your plant and irreplaceable equipment with the *BEST* fire extinguishing equipment available. Protect them with ANSUL EXTINGUISHERS.

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- Quick, *positive* puncture operation.
- Special guard protects cartridge . . . rugged construction throughout.
- Ansul *"PLUS-FIFTY"*® Dry Chemical used exclusively.
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Send for File No. 714. You will receive a variety of helpful printed matter. Included is our latest catalog which describes Ansul Extinguishers of all sizes — from the small Ansul Model 4 to Ansul Piped Systems and Ansul 2000 lb. Stationary Units.

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FIRE EXTINGUISHER DIVISION

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World Wide Fire News

By Roi B. Woolley

Powder Blast Kills Four

A powder blast and fire in a Navy shell-loading plant at Hawthorne, Nev., on October 1, killed four persons and injured six seriously. The fire which followed the explosion threatened to blow up the entire vast, sprawling plant. Officials of the Hawthorne Naval Ammunition Depot, scene of the accident, said nearly 50 civilians and military personnel were safely cleared from the plant.

The original blast occurred in one room of the plant. Workers in adjoining rooms managed to remove seven victims, six alive and one dead, before fire swept the room. Three workers were trapped and their bodies later recovered.

Volunteer crews entered the room where the explosion originated some time later in an effort to extinguish the flames threatening large stores of explosives in the remainder of the plant. Just how extensive the losses were was not made public.

* * *

Fire, Panic Fatal to 14 in Mexico

Mexicans in Mexico City were celebrating their "independence day" September 15th, last. The "Can Can" cabaret, among others, was crowded about 2:00 A.M. at which time a skyrocket exploded and set fire to the establishment.

How the fireworks managed to explode has not been revealed, but the consequences were immediate and tragic. Fourteen persons were burned or trampled to death and another nine were hurt. Among the dead was one American.

It was another case of flimsy paper decorations, a single narrow exit door (less than 3 ft. wide) and a mass rush for that means of egress. Most of those who got through lived, but one man, his clothes aflame, ran three blocks before he dropped dead.

When firemen had extinguished the blaze they and police found nine persons who apparently had been trampled to death. The others were burned.

* * *

New Delhi Amphitheatre Burns

A gigantic wood and canvas amphitheatre, built to seat more than 100,000 persons for the plenary session of the Congress Party session in New Delhi, India, burned out the day before the opening of the convention.

Thousands had worked for a month on the structure in the diplomatic colony of the city, behind Prime Minister Jawaharlal Nehru's residence. Mr. Nehru, who had been inspecting the plant, saw flames in a distant corner, but before firemen or others could do anything, the fire spread and the structure was a flaming mass by the time the first fire fighters arrived.

Later Mr. Nehru told a public meeting there was no question of sabotage. He said the fire began with a short-circuit at the top of a pole near the canvas roof.

* * *

Hot Off the News Ticker

Eight men are dead and three others in critical condition in Caracas, Venezuela, from burns caused by the explosion of gasoline with which they were cleaning a restaurant floor. . . . Belated reports are said to confirm the deaths of 25 workers in a Hankow junk yard, injuries to 32 others, when one of three old Japanese torpedoes, included among scrap iron bought from the Chinese Red Government, exploded. Thirty-one houses were demolished. . . . Six pro-Communist Chinese youths set fire to the plant of the Singapore Standard, a newspaper. Damage was reported only slight. . . . In Besancon, France, a paralyzed 80-year-old man watched helplessly as his wife burned to death a few feet away from him when a stove set her skirt afire. . . . Sydney, Australia, police say an unheated boarding house is a dismal place to live in the winter. But they take a dim view of the solution Leslie Nicholls and Leonard Brown devised to settle their heating problem (it's winter in Australia now). The men, who set fire to the house, told arresting police "we just wanted to get warm." . . . A Royal Air Force jet Meteor plane exploded in the air September 10, last, and wrecked two houses in the resort town of Westcliff, England. Known dead were pilot and two women and a man in the house set afire by one engine. Another woman was reported buried under the debris. . . . About 10,000 firemen in London and the big provincial cities on October 16, began a 48-hour ban on all duties except fire calls because they are receiving $4 a week less pay than policemen. . . . A Danish Army Spitfire crashed into a house near Ringsted in September, killing the pilot and a 12-year-old boy who lived in the house. . . . A dump of 120 gasoline drums blew up

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MUNICIPAL FIRE HOSE

NONE BETTER

. . . the noticeably better performance of American Fire Hose is the result of skillful, painstaking manufacture. American does not compromise with quality — as a result critical buyers eventually standardize on American.

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5 . . . calendered sheets

FLEXIBLE . . . balanced weave and premium yarn assure greatest strength and flexibility.

SMOOTH WATERWAY . . . lowest possible friction loss.

DEPENDABLE . . . unsurpassed for ruggedness and long life.

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Illustration by Elizabeth Olds

BUCKET brigades like modern sprinkler systems used water to extinguish fires.

But there are many fires where water is ineffective . . . or where water damage could be serious. That's where it pays to consider a Kidde CO_2 System.

Kidde Systems use fire-smothering carbon dioxide. They are effective in protecting electrical equipment, flammable liquids, documents or materials which might be damaged by other extinguishing agents.

A single Kidde System can guard one space or several. It can be arranged to go off automatically when the heat from the fire hits the Kidde detector.

Give us a ring if the problem involves fire extinguishing equipment, either portable or built-in.

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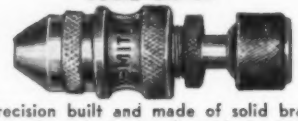

Precision built and made of solid brass throughout. Instantly adjustable for 30-40 ft. strong stream or long distance spray. Also makes a beautiful fog mist. This nozzle screws on any *Indian Fire Pump*.

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1 gal. tank. Seal tight handy filler cap. Brass feed pipe. Strongly built.

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5 GALLON CAPACITY
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For carrying drinking water to construction, fire fighting or road crews. Also used for refilling Indian Fire Pump tanks on the fire line. Large opening for easy filling. Push button faucet. Carries by handle or slung on back. Air conditioned tank.

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in Cuidad Bolivar, Venezuela, as the result of a fire in the Creole Petroleum Corp.'s Les Cariocas storage area. No casualties reported. . . . Blasts and fire in a munitions factory in Maupertius, near Vichy, France, on October 4, killed four workers and injured 15 others. One person reported missing. Cause said to be an anti-tank grenade which led go, touching off an ammunition stockpile which in turn detonated other ammo' that rocked the countryside. One of dead was a woman, mother of eight children. . . . German demolition experts were removing a 1,000 lb. British wartime bomb near center of heavily populated worker's district of Nurnberg when the timing mechanism was struck by a steam shovel. Bomb began to tick. Eight thousand residents were hastily evacuated from the danger zone. A short time later the bomb exploded, shaking buildings in a five block radius. Nobody reported killed. . . . A crudely painted sign of the skull and crossbones was found inside a fuel tank of the British tanker Dromus, that went up in flames in September killing 25, it was disclosed October 1st. Near the painting were daubed in Chinese characters: "Bones and skull gang." Ship's captain, however, claimed there was no evidence of sabotage. . . . In Austin, Tex., the Homer Parker family were eating lunch when a plane crashed into the bedroom —20 feet away. Plane's fliers suffered slight injuries, but none of the Parkers were hurt. . . . One of England's latest experimental jet planes, the Handley Page 88, exploded in midair over Stansted, Eng., and crashed, killing the pilot. Plane had revolutionary wing design, known as "Scimitar wing." No report of fire damage. . . . A light plane exploded in midair and plunged into Lake Ripley on outskirts of Litchfield, Minn., carrying three persons to their deaths. Litchfield firemen worked through a downpour of rain and recovered bodies in 20 ft. of water. . . . A stunt plane carrying a 17-year-old girl performer on its wing crashed September 3, before 30,000 spectators at the Minnesota State Fair, St. Paul. Pilot and girl were killed in flaming wreckage. . . . Four persons, including two young boys, were killed when a small plane plummeted into a Vandalia, Ill., street, three blocks south of the business district, hit an unoccupied parked car. . . . A helicopter rotor, broken off in mid-air in an accident fatal to the pilot of the helicopter, crashed through a window of the home of E. H. Page, in Lynwood, Calif. Page and his wife, asleep at the time, were uninjured. No fire ensued. . . . A single engined Stinson airplane crashed and burned September 9, after taking off from Phillipsburg, N. J., Airport, killing its pilot and four teen-aged passengers. Plane landed in cornfield, burst into flames.

Quebec Has Forest Fire Boat

The Quebec Lands and Forests Department is said to have built a 70-foot "fireboat" to carry men and equipment to fight forest fires from the waterside along the north shores of the St. Lawrence River.

The ship, which is named "Feu Follet," replaces an older boat which outlived its usefulness.

"Feu Follet" reportedly has a crew of eight and in emergencies is able to move up to 100 men to distant points that cannot easily be reached by inland communications.

Among the Buffs

By Paul C. Ditzel

From the city of Mrs. O'Leary's storied cow comes word that Chicago plans to build a monument on the site at Jefferson and DeKoven Streets where Mrs. O'Leary's barn and cottage stood. Appropriately the monument will be a fire station. The site of the start of the Great Chicago Fire of 1871 is in an area which is being redeveloped for slum clearance and construction of a superhighway.

For the fire buff, who likes his fires statistic-wise, comes an announcement from the Chicago Fire Department that there were 2,920 fire alarms in September. That would figure to about 98 alarms a day. From New York comes word that there was a fire there every 12 minutes as the Fire Department announced that alarms average 170 a day.

And while on the subject of figures, I wonder whether any city anywhere can boast a busier piece of fire apparatus than Chicago's Rescue Squad 3? Squad 3 answered 4,662 alarms in 1951, which were evenly divided between fire and rescue calls. A national magazine recently incorrectly nominated a New York Hook and Ladder Company as the busiest. I would certainly appreciate hearing from any buffs who know of a busier rig than Squad 3, because I am preparing an article on Squad 3.

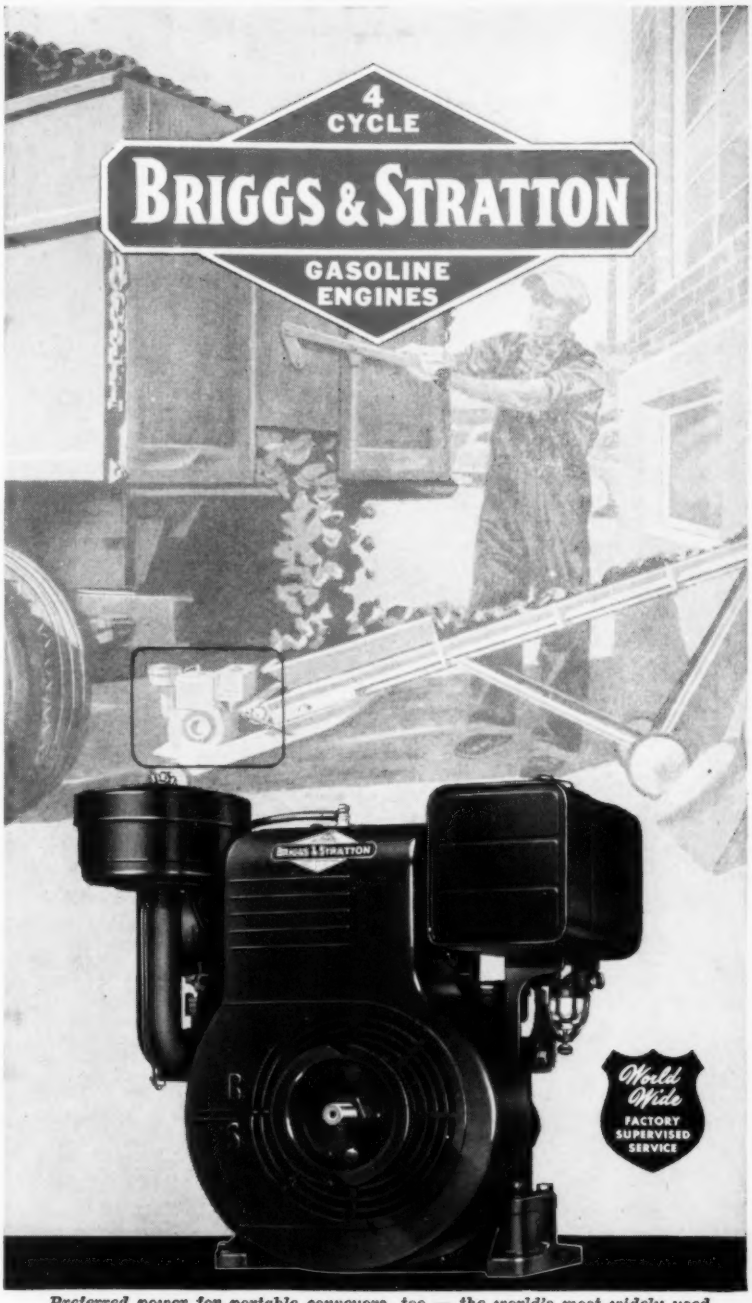
Fire Buff Michael Rossman of Skowhegan, Maine, suggests that this column be the starting point for a National Fire Buffs club "with pin, badge and identification card."

"It's about time most of the buffs stopped acting like little boys caught with their hands in the cookie jar when the subject of chasing fires comes up. The record of genuine service by sparks in my former home town of Lynn, Mass., is a testimonial to their interest, and I include rescues, and the assistance in the purchase of equipment. This is true on a national scale. It's a hobby to be proud of and I, for one, am proud of my work as a spark," writes Mike.

His idea is certainly worthy of study and if a few of you fans who have been so very energetic in writing me go for the idea, perhaps I can persuade—if such be necessary, which I doubt—to get the assistance of Editor Don Shelburne of the National Fire Fan Register and his hard-working colleagues.

Speaking of the Register, Editor Shelburne writes that FIRE ENGINEERING readers have been enthusiastic in their reception of the Register. Don and the other fans with him are putting plenty of time in their new magazine, and for $1.50 the reader gets more than his money back in good photographs in addition to well-written fire stories. Why not drop Don a line at 7614½ Seville ave., Huntington Park, California?

Nomination for Fire Fan Club of the Month: "The 476 Club" of Philadelphia. The 23 members of "The 476 Club" took their name from the Philadelphia Bureau of Fire's radio station call letters, KGB-476. The club is one of the newer ones, having been formed March 8, 1951. The club is probably unique among fire bell outfits because the entire membership consists of firemen, either



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THERE is a Briggs & Stratton engine service organization, factory trained and supervised, near you — with a stock of genuine Briggs & Stratton parts for all models. The Briggs & Stratton service organization network is the largest of its kind in the world. Briggs & Stratton Corporation, Milwaukee 1, Wis., U. S. A.

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DON'T COMPROMISE ON QUALITY — DEPENDABILITY

A snagged hose line can cause serious accidents and can ruin your hose. Experienced fire-fighters appreciate the curved surfaces of the "Sensible-Lug" which enable hose to glide over all obstructions thus protecting life, limb and equipment.
Specify Powhatan Sensible-Lug on your next Hose order.

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LISTEN TO THE MEN WHO USE IT!

From Coast to Coast . . .
Progressive Fire and Police Chiefs . . .
To Protect Their Men and to
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10 TOOLS IN ONE — DOES EVERYTHING — EVERYWHERE

ONE MAN—alone—
for forcible entry.
Ventilation, brick walls, roofs, floors, trim, ceilings. All inside or outside work.

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CERTIFICATE of MERIT Boston Fire Fighters Local 718, IAFF, Awarded to Chief Hugh A. Halligan, Fire Dept, City of N. Y.

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KEARNY, N. J.: "Finest implement in fire service."

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paid or volunteer members. Many fire bell clubs refuse to accept active firemen as members.

Demon Letter Writer Jack Robrecht, of 5113 Willows ave., Philadelphia, probably can outrun not only fellow members of "the 476 Club" but most other buffs around the country as well. Early the other morning Jack was listening to his fire department radio when a two-bagger banged in at least a mile away. Jack, who was without transportation, grabs his boots and firecoat and takes off in a Glenn Cunningham stride to the scene of the fire. It is reported that Jack reached the fire before the second alarm apparatus. Additional alarms were later sounded for the blaze.

Many of you fans specialize in fire photography. As a novice to the camera —I've finally figured out the lens opening and the sighting opening on my Kodak Reflex II—I'd appreciate help from you. I'm planning to take color pictures of fires, both day and night, for use later with a projector. Now I understand night color shots are pretty difficult and often impossible. However I'd appreciate receiving some tips from you experts on what settings, type of film, etc., you have found to work out the best for both day and night fire photography. I'll also be doing considerable black and white picture-taking and could also use a little snapping-in on just how to set my camera for this type of picture. I plan to use a near future column for a round table on fire photography so anything you fans send along probably would make good reading to other fans, who like me, are baffled by this hobby of fire photography.

Heard from Police Sergeant "Paddy" McDonald who is in the detective bureau at police headquarters in Chicago. "Paddy" has been a policeman for 30 years, but his father and two brothers were firemen.

I met "Paddy" originally during one of his nightly walks to the press room in police headquarters when I was a police reporter for a Chicago news service.

"Paddy's" first love is the fire department and he serves as an advisor to reporters from the Chicago papers on operations of the Chicago fire department.

Whenever I ask "Paddy" why he didn't join the fire department inasmuch as he is more a fireman at heart he replies:

"Any man can drag hoss, but it takes a good man to translate law."

"Paddy" then laughingly adds that a habeas corpus is something you find on a morgue slab.

"Paddy's" Dad fought the famous Iroquois Theater fire in which 596 persons died and "Paddy" remembers selling papers at the scene.

Winding up the tape for another month, I hope you buffs continue to write. Address remains the same: 859 Wellington avenue, Chicago 14, Ill. Or if you're in town you might telephone me at the Associated Press, 160 N. LaSalle street, at State 2-7700.

Forty municipal fire units and state trucks from eighteen communities in the Cape Cod, Mass., area took part in a large scale civil defense exercise, October 28, 1951.

Obituaries

Former Chief Melendy

Albert C. Melendy, Chief of the Nashua, N. H., Fire Department from 1931 to 1939, and a member of the organization for over 50 years, died at his summer home, Baboosic Lake, Amherst, on Sept. 30, 1951 at the age of 83.

For many years he was secretary of the New England Association of Fire Chiefs, and treasurer of the Firemen's Fund. He was also a long standing member of the International Association of Fire Chiefs.

Chief Melendy joined the Nashua department as a torch boy in the volunteer days. He was made permanent fireman in 1889, promoted to Captain of Chemical Co. No. 1 soon after, and in 1918 he became Deputy Chief. He retired May 1, 1939.

Chief Daniel Penn

Funeral services for Chief Daniel Penn, for many years head of the South Orange, N. J., Fire Department, were held October 8th at Our Lady of Sorrows Church, South Orange. Chief Penn was widely known among New Jersey Fire Chiefs and was a member of the Paid Fire Chiefs Club of that state.

Deputy Chief Desaulniers

Deputy Fire Chief Esdras L. Desaulniers, a member of the Woonsocket, R. I., Fire Department for 26 years, died suddenly at his home in that city where he had been convalescing from injuries received fighting a tenement house blaze last April. He was 55 and was due to return to duty the morning of his death.

Chief Desaulniers became a lieutenant in 1936, and was advanced to captain in 1942. In 1944 he was elevated to deputy chief. He leaves a wife, one daughter, two brothers, two sisters and three grandchildren.

More than 100 members of the Woonsocket Fire Department, together with city officials, and numerous out-of-town fire officials from Rhode Island and New England fire departments, paid final tribute at his funeral services.

Persons in the News

C. Johnson Succeeds Behrendt as Flint Fire Chief

Calvin Johnson, 43, became head of the Flint, Mich., Fire Department on October 15, last, succeeding Walter C. Behrendt upon his retirement. The new incumbent had been assistant chief since 1949.

Johnson was named by City Manager Kinder, following his certification by the Civil Service Commission. Chief Johnson joined the department in October 1935. He was advanced to lieutenant in 1942, and two promotions in 1947 brought him to the office of batalion chief. In May, 1949, he was named assistant chief.

Retiring Chief Behrendt had been on the department 27 years, and chief since 1950. Although eligible for retirement three years ago, he was retained as chief

WOULD YOU PAY JUST $60 TO MULTIPLY THE EFFECTIVENESS OF YOUR FIRE-FIGHTING EQUIPMENT?

It wasn't long ago that it was impossible for most fire trucks to handle bad spill fires or fires over any great area.

And there was often real trouble when they had to go beyond the range of regular water supply. They had only as much extinguishing agent as the capacity of the water tank on the truck. They had no way to "stretch" it. Once their 100 to 200 gallons was gone, they were finished.

Is *your* department still struggling against these obsolete limitations?

Well, it needn't. Not any more. You can modernize every truck you have—make it effective for gasoline and oil fires—increase mightily its fire-killing power on ordinary combustibles when water supply is limited.

And you can do it for the staggeringly low price of just $60 per truck!

Air Foam Playpipes—the modern way to step up fire-fighting effectiveness

The secret of increased fire-killing power is *air foam*—that remarkable tried-and-tested invention. With one gallon of Pyrene* Air Foam Compound and 20 gallons of water, you can produce 350 gallons of fast-acting air foam—the *sure* agent for blanketing fire and keeping it from reflashing. And you can do it *instantly*—with no complicated apparatus, no difficult operating tricks. You simply connect a Pyrene Air Foam Playpipe to a hose line. It automatically mixes foam compound and water to produce and discharge huge quantities of air foam. One man can operate the playpipe anywhere your hose lines can go. What's more, it can discharge either foam or plain water.

Think of it! With a 100 gallon water tank, *you can produce 1,750 gallons of air foam*—even though it should be impossible to get more water! And air foam fully equips you to fight flammable liquid fires, as well as those in ordinary combustibles.

Complete outfit—playpipe, pickup tube, adapter, foam compound—only $60

This is no scatterbrained idea dreamed up by some wild-eyed inventor. This equipment was developed by Pyrene—the most honored name in the fire extinguishing field—the acknowledged leader. Right now, this equipment is in use in thousands of fire departments all over the country. Everywhere, they are enthusiastic about the tremendous job this equipment is doing.

It can do the same kind of job for you—and at a phenomenally low price. You can have a Pyrene Air Foam Playpipe, a pickup tube, a hose adapter and four gallons of foam compound for just $60. That's all you need! Nothing to replace except the foam compound. No installation. Your $60 takes care of everything!

*T.M. Reg. U.S. Pat. Off.

Send coupon today—no obligation

Your department owes it to itself to have a good look at this remarkable equipment. All you need do to arrange such a look—with no obligation whatsoever to buy—is to send the coupon. We'll take care of the rest. Send it right now—don't give yourself a chance to forget!

Pyrene FIRE EXTINGUISHERS

PYRENE MANUFACTURING CO.
(Affiliated with C-O-Two Fire Equipment Co.)
594 Belmont Ave., Newark 8, New Jersey

Yes, we'd like to see how the Pyrene Air Foam Playpipe can multiply the effectiveness of our fire-fighting equipment for just $60. I understand we are under no obligation whatsoever to buy. Have someone come around to our firehouse on _____ (date) at _____ (time).

We can't wait! Send us _____ sets of model PP14 Pyrene Playpipes, Foam Compound, etc., @ $60 each. Our hose thread size is _____.

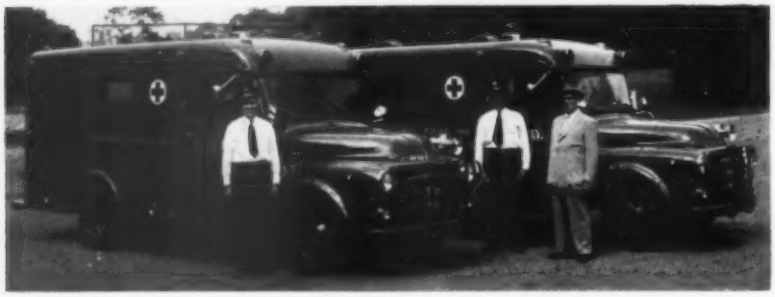
My name _____

Name of our department _____

Department address _____

City or town _____ State _____

My position _____



In Columbus, Ohio—RESCUE CARS by Gerstenslager

Every Gerstenslager **RESCUE CAR**

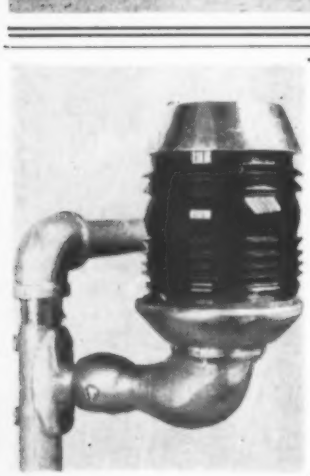
IS DESIGNED AND BUILT TO INDIVIDUAL SPECIFICATIONS

In a Gerstenslager RESCUE CAR the details of size and arrangement are determined by the types and quantities of equipment your judgment tells you will be required. Our design department carries out your specifications to provide space for necessary rescue apparatus and supplies with maximum accessibility.

A member of our nationwide staff of sales engineers will help you to develop your specifications and work out details with our design and production departments.

The GERSTENSLAGER Co.

WOOSTER, OHIO *Established 1860*



RAIL LIGHT

BRILLIANT — PENETRATING

360 Degrees of RED LIGHT

This genuine fresnel light shines like a lighthouse beacon! It has the very same type of lens. Here is the answer to ALL AROUND fire truck protection.

Ball and socket bracket permits four different mounting positions on vertical or horizontal hand rails. Mounted on the horizontal rail, it will clear ladders and hose.

Use them in pairs. Alternating flasher operates 21 CP bulbs.

$30.00 a pair with alternating flasher.
$16.00 each with 50 CP bulb and flasher.

IMMEDIATE DELIVERY

ARGUSLITE CO.

BLUE RIDGE SUMMIT, PENNA.

through an "emergency" provision and charged with reorganizing the department. He is credited with a successful reorganization program that set up rescue and fire marshal divisions within the department and the establishing of better fire training.

Morris Heads Charlotte F. P. Bureau

Effective November 1st, Deputy Fire Chief Joe F. Morris, was shifted to command of the Charlotte (N. C.) Fire Prevention Bureau, and Capt. H. E. Brown, promoted to assistant deputy chief inspector, under a recommendation made October 4th by Fire Chief Donald S. Charles.

The move, designed to expand and emphasize the work in fire prevention, was approved by City Manager Harry A. Yancey.

In requesting the transfer of Deputy Chief Morris to the Fire Prevention unit as deputy chief inspector in charge, Chief Charles said he will fill the vacancy created August 21 by the retirement of H. C. Kissiah.

Captain Brown has been in acting charge of the Fire Prevention division since the retirement of Mr. Kissiah.

D. G. SPENCER

J. F. Brady Retires

Joseph J. Brady, 60, Superintendent of the Fire and Police Signal systems at Bridgeport, Conn., was retired by the Board of Fire Commissioners on Sept. 30, after serving 35 years as a member of the Fire Department in that city.

Supt. Brady, who holds the equivalent rank of Assistant Chief, was commended by the commissioners for his "long and faithful service." He will receive a pension of 70 per cent of his annual salary under a new act passed by the 1950-51 State Legislature, and is the first Bridgeport fireman to be retired on the increased pension.

He was appointed to the Fire Department June 23, 1916, and assigned as a fire alarm repairman. On April 1, 1926, he was promoted to Lineman with rank of Lieutenant.

Upon the retirement of Supt. Frederic G. Anderson in December, 1928, Mr. Brady was promoted to the rank of Assistant Superintendent of Fire Alarms with the rank of Captain. He served as Acting Superintendent until February 1, 1948, when he was elevated to his present post after passing a Civil Service examination.

TOM MAGNER

Rhode Island Firemen Honor Marshal O'Brien

More than 250 Rhode Island firemen and others from neighboring areas paid tribute to Leslie J. O'Brien, retired state police lieutenant and deputy fire marshal of the state, at a testimonial dinner Oct. 1, at Johnson's Hummocks, R. I.

The retiring deputy, who is widely and popularly known, was presented with a television set, his successor, Sgt. Thomas J. McHugh the new deputy state fire marshal, making the presentation.

O'Brien's 20-year service to his state was lauded by State's Atty. Gen. William E. Powers, Col. John T. Sheehan, Supt. of State Police and State Fire Marshal, and many fire chiefs, representing New England and Rhode Island

fire service organizations. Former State Rep. Samuel H. Ramsay of East Providence was toastmaster. Andrew P. Palmer, Woonsocket Fire Marshal, was chairman of the banquet arrangements committee which included R. I. Fire Chiefs John Loughlin, E. Providence; John Savage, Valley Falls; A. J. Cote, Woonsocket; Arthur Selly, Kingston; Abel Eldridge, Newport; Thomas Cotter, Providence and George Salisbury, Central Falls.

Harris Heads Fulton, Mo., Forces

Clinton Harris has been appointed Chief of the Fulton, Mo., Fire Department to fill the vacancy created by the resignation of Fire Chief Harold W. Hatcher, recently resigned after heading the organization since 1946.

William Jerome Daly, Jr., Enters Law Practice

William Jerome Daly, Jr., son of Jerry Daly, secretary of the Board of Transportation, fire buff extraordinary and long time contributor to FIRE ENGINEERING, has returned from Italy, to open a general law practice in New York City. His offices will be at 15 William Street.

Daly, Junior, gives up the post as secretary for the United States on the Italian United States Conciliation Commission, with headquarters in Rome.

James K. McElroy Joins Protectowire

James K. McElroy, formerly assistant technical secretary of the National Fire Protection Association and widely known for his reports of outstanding fires, is now associated with the Protectowire Co., Hanover, Mass., as its Middle-Western Representative.

September Fire Losses

Estimated fire losses in the United States during September were $53,398,000, it was announced by Lewis A. Vincent, general manager of the National Board of Fire Underwriters.

This is an increase of 16.3 per cent over losses of $45,922,000 reported for September, 1950 and a decrease of 3.6 per cent from losses of $55,416,000 reported for August, 1951.

Losses for the first nine months of 1951 now total $548,475,000 an increase of 6.3 per cent over the first nine months of 1950.

These estimated losses under fire insurance policies include an allowance for uninsured and unreported losses.

Sacramento Alarms Down—Losses Up!

In 1950, there were 1526 fire alarms in Sacramento, compared with 1614 for the year previous, according to the Annual Report of the Sacramento, Calif., Fire Department, Chief Terence Mulligan. Actual fires totaled 968 compared with 1043 and false alarms amounted to 122 as against 162 for 1949. Total fire losses, however, for the year 1950 were up—$374,316 compared with $236,791 for the year before.

EXTRA DAILY BULLETIN

ANOTHER NATIONAL FIRST ★ ★ ★

New AER-O-FOAM "99"

Smothers POLAR SOLVENT Fires

The 5-gallon AER-O-FOAM "99" container is readily identifiable by its distinctive yellow and red label to distinguish it from other types of foam.

AER-O-FOAM "99" . . . new liquid type mechanical foam! Now get positive, quick-acting protection on fires involving polar solvents or petroleum products.

When applied to fires fueled by polar solvents such as methyl, ethyl, isopropyl alcohols, esters, ketones and ethers as well as petroleum products, AER-O-FOAM "99" offers new, dependable, stabilized protection. It is easily generated. Provides smothering, closely-knit blanket of fire-killing foam. Will not readily disintegrate or break down. Thoroughly tested, it is easily applied with existing 6% devices.

CHECK THESE ADVANTAGES:

- √ Complete protection in automatic systems
- √ Simplified storage in tanks
- √ Wide choice of application devices

WRITE FOR DETAILS

For further information, see your nearest National Foam Distributor, or write for complete details today!

ANOTHER NEW PRODUCT BY NATIONAL FOAM

—Pioneers in the manufacture of foam and foam equipment

NATIONAL FOAM SYSTEM, INC.

Headquarters for Foam Fire Protection

WEST CHESTER, PENNA.

We do not want you to buy our resuscitator

Not until you have investigated them all.

We make no sweeping claims of superiority. But we do feel that you can do more for the patient when you have an automatic resuscitator using positive and negative pressures—and when you yourself can control the operating pressures and the oxygen-air concentrations.

This conviction is based on the more than 20 years of experience our principals have had in the development and promotion of resuscitation equipment.

This experience will help you do a better job of protecting your men and your community from the hazards of smoke, gas, drowning and the like.

Remember, your community depends on you to find the best in life-saving equipment. You can discharge this responsibility best by careful comparison of what each machine will do for the patient you are treating who is about to die from some kind of asphyxia.

We urge you to write today for literature or a demonstration of the Stephenson Resuscitator.

STEPHENSON CORPORATION
RED BANK NEW JERSEY

Represented in Canada by SAFETY SUPPLY COMPANY of Toronto

500-Gallon Equipment Mounted on Ford Chassis Recently Delivered to Taylorville, Illinois

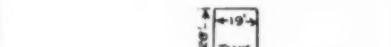
CENTRAL FIRE TRUCK CORP.
4437 Manchester Avenue, St. Louis 10, Missouri

Questions and Answers

Pipe Sizes for Pumps Supplying Tank

To the Editor:

At the present time we have a centrifugal pump with an approximate capacity of 300 gallons per minute and an old type piston pump with a capacity of approximately 150 gallons per minute, supplying the standpipe as per drawing. We wish to replace the old piston pump with a new 500 G.P.M. centrifugal pump which would give us approximately 800 G.P.M. at rating.



1. For both pumps, would the 8-inch standpipe going up to tank be large enough or would you recommend a second line for new pump to run up to tank? If so, what size?

2. If 8-inch line is satisfactory, would the old 5½-inch pipe now on old pump be large enough for the new 500 G.P.M., or do you recommend that this also be increased to 8-inch.

3. If both pumps are used together, no doubt check pressure valves would be needed. What would you recommend?

For your information, the pumps are in different buildings. One line goes directly in tower to standpipe (300 G.P.M.), while the old pump is connected to line in ground—approximately 6 feet lower (note floor line).

C. S. C.

Answer 1. The 8-inch standpipe is sufficiently large to handle the flow from both pumps, so it will not be necessary to install a second line for the new pump to run up to the tank.

Answer 2. The old 5-inch pipe if it is only in fair condition should be sufficiently large to handle the flow from the 500 G.P.M. pump. The friction loss in the line and fittings should not exceed at most 3

pounds when pump is operating at full capacity.

Answer 3. Check valves in both lines would be very desirable. Check valves should be placed at the discharge flange of each pump. Single check valves would be satisfactory as there is no problem from the standpoint of pollution. Check valves made today with cushioning to eliminate water hammer.

The value of a check valve is that it prevents back flow in the event that a pump stalls from any cause. There is no bleeding of the tank through the pump and back to the source of water when a check valve is employed.

Nozzle Pressure on Long Line

To the Editor:

At present I am taking a Fire and Aircraft Crash Rescue Officer course via mail from the Air University. A recent test question read:

The engine pressure is 150 lbs. with 1200 feet of 2½-inch hose laid out and a ⅞-inch tip on the nozzle; the nozzle pressure is: a. 44 pounds per square inch; b. 54 pounds per sq. inch; c. 64 pounds per sq. inch; d. 74 pounds per sq. inch.

The school study book quotes: "The technical formula for determining nozzle pressure is: N. P. = E. P. ÷ (1.1 + KL), where K is the diameter of the nozzle to the fourth power divided by 10. L is the number of 50-foot hose lengths in the line.

The school quotes 54 pounds as being the correct answer.

My solution is as follows:

N. P. = E. P. ÷ (1.1 + KL)
E. P. = 50
K = .0586
L = 24
N. P. = 150 ÷ (1.1 + .0586 × 24)
= 150 ÷ 1.1 + 4
= 150 ÷ 2.5
= 60

Who is correct? R. K.

Answer: We have checked through your solution, and find it is substantially correct. Actually the nozzle pressure would be 59.84 pounds where we use the value of K as .0586 and carry out the solution almost to completion. Thus your answer of 60 is practically correct. Hence your solution is nearer the correct figure than is that given by the examiner.

In the Answer B, 54 pounds is given as the nozzle pressure. Your solution gives it as 60 pounds, which is but four pounds away from Ans. C. The examiner selects B, or 54 pounds, which is six pounds off the calculated value. Thus your answer is more nearly correct than that selected by the instructor.

Fire Forces "Steal" C. D. Show

In what is reported the nation's first state-wide civil defense test, Rhode Island mobilized 87 pumpers to throw up a water curtain along the Woonasquatucket River in Providence. More than 20,000 disaster workers from four New England states assembled. Exercises were observed by top brass also from twelve other states, and Washington.

Now all Philadelphia firemen get 2-way radio coverage from either the main station or the new auxiliary station.

Does your city need this protection?

New auxiliary station operates four 250-watt transmitters, two channels for police, two for fire.

Two easy-to-operate consoles route calls to fire and police apparatus all over Philadelphia.

New Philadelphia 2-way radio center controls police, fire, civil defense. Provides radio coverage for any emergency.

New station remote from downtown area

Philadelphia is a *safer* city now, thanks to a new RCA 2-way radio center recently established in West Philadelphia, four miles from the heart of the city. Acting as an auxiliary to the main control center at City Hall, this new installation will provide *emergency* 2-way communications with mobile police and fire units. It will also serve as control center for civil defense.

Two-station coverage gives double protection

Both the main station and this new auxiliary station operate on the same frequency. If one fails, the other takes over. So Philadelphia is assured of *extra* safety in emergencies. It's all typical of RCA 2-way radio at work . . . making things safer and more efficient wherever it's used.

Is your city protected by 2-way radio?

Radio coverage of police, fire, and emergency vehicles is almost mandatory in these troubled times. And even in day-to-day operations, it can quickly save your taxpayers far more than it costs.

RCA radio easy to install-operate-maintain

Look into RCA radio for 2-way coverage in *your* city. Mobile units are compact, lightweight . . . easy to install and maintain. Performance exceeds FCC requirements. Designed and backed by RCA, world leader in radio. Nation-wide service available through RCA Service Company.

Get full story for your city—now

RCA Engineering Products
Dept. 50W
Camden, N. J.

Please send me your big, new, free, illustrated booklet, "RCA 2-way Radio for Public Safety."

Name_____

Position_____

Address_____

City_____ State_____

RCA RADIO CORPORATION of AMERICA

OFFICIAL BADGE

Actual Size No. 5822

AND BUTTON

Actual Size No. 7414

OF YOUR ASSOCIATION

Wear One!

No. 5822
Rolled Gold $8.50–14 Kt. Gold $55.00

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Rolled Gold $1.00–14 Kt. Gold $3.50
Plus 20% Federal Tax

Satisfaction or money refunded.

BRAXMAR BADGES

Standard since 1879

JOHN O. VEIT
President

C. G. BRAXMAR CO., Inc.
216 E. 45th Street, New York 17, N. Y.

The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

Goshen, N. H., Fire Truck Blaze!

The new fire truck of the town of Goshen, N. H., caught fire while stabled in the town shed, which serves as a fire station.

The blaze in the cab of the apparatus, purchased less than a year before, threatened to consume the vehicle and the shed. Fortunately, Fred Morse, a captain in the Goshen Fire Department, who lives across the street from the shed, saw the smoke and hustled over, where he was joined by Alfred Ayotee. Captain Morse managed to tow the vehicle outside its quarters, being burned about the hands in the attempt. Then he, with the aid of others, managed to extinguish the flames, which caused a reported $100 worth of damage.

Newport, N. H., was called upon for aid and sent two pieces of apparatus to stand by in the event the fire spread.

(THANKS JONAS WELCOME)

* * *

Union, N. J., Fire Department to Hire Disabled

Disabled war veterans, though in wheel chairs, will have an opportunity to work for the fire department of Union, N. J., as clerks, and thus augment their government pensions, according to a Township Committee's proposal disclosed July 11, last.

The proposal was made by Fire Commissioner Robert Ostertag as a result of approval of the pension application of a fireman earning $3800 a year. The disabled veterans, he explained, would not be appointed firemen, but would do clerical work at fire headquarters and operate the switchboards and radio.

The committee is understood to have agreed to split the salary of retiring firemen between two disabled veterans, thus giving them jobs and fire headquarters better "coverage."

* * *

Old Rule on Fire Reports Invoked in Blaze

A year-old police regulation on reporting fires regardless of size in the District of Columbia was invoked for the first time Aug. 9, 1951, against officials of the United Food Stores Corp. in connection with their $125,000 warehouse blaze the previous Friday.

The regulation promulgated in 1950 requires that a fire in any building other than a private dwelling must be reported "immediately," even if it has been extinguished, with or without damage. Failure to comply carries a penalty of $300 or 60 days in jail or both.

District fire department officials, at a hearing before Asst. Corporation Counsel Clark King, reported that the Friday three-alarm blaze, which threatened the entire Southwest warehouse district, apparently had been caused by resurgence of an earlier fire, which employes thought they had extinguished. The Fire Department received no report of the earlier fire until after the big blaze, officials said.

The food company executives pleaded ignorance of regulation and said the smaller fire, which broke out in a tobacco and candy storage room shortly after 4:00 P.M. that day, was believed extinguished when the warehouse was locked up for the night. The big blaze was discovered by a watchman in another warehouse shortly before 7:00 A.M.

Counsel issued a warning to the food company saying he would not prosecute this time because he felt "the heavy loss from the fire was punishment enough for neglecting the law."

IRVING A. JOHNSON.

* * *

Anesthetic Blast Kills Dental Patient

Another freak explosion of a dental anesthetic, this one in Waterloo, Ia., caused the death of Owen Hindal, 20. The explosion occured in the office of Dr. George Foster, dentist, just as the extraction of several of the patient's teeth had about been completed. Edna Andrews, 31, office nurse, suffered arm burns, but two other assistants in the office, and the doctor, escaped injury.

Mr. Hindal, employed by a construction machinery concern, married only four months, died in a hospital seven hours after the explosion. He suffered throat and lung injuries and possible brain damage.

Dr. Foster said the explosion originated in the gas machine in which Vinethene and nitrous oxide were being mixed but that he could not explain what touched it off. He said he had used the anesthetic probably 5,000 times and that it was widely used throughout the country. Vinethene is a type of ether and nitrous oxide and one of the oldest comonly used anesthetics. (Note: Vinethene is a trade name. Nitrous oxide is similar to "laughing gas". Green Underwriters label required. Not classed as a fire hazard.)

* * *

Fireman Dailey and Family See Snakes!

This story comes from FIRE ENGINEERING's peripatetic correspondent, Tom Magner, who vouches for its authenticity.

It seems that Fireman Vincent A. Dailey of Hartford, Ct., has a recreation room in the cellar of a new home at 61 Bolton street, that city, miles away from the "rattle snake belt."

Fireman Dailey, was working in his recreation room with his son Vincent, Jr. on Aug. 23 last. The latter noticed a movement in one of five bags of potatoes stacked under the stairs, and called his father. As they approached the bag they heard a rattle, sending shivers up their collective spines. Both voiced the thought; it's a rattlesnake.

Credence was given the expression as they recalled that the potatoes were just bought of a farmer in Glastonbury, noted as Connecticut's rattlesnake country.

Mrs. Dailey soon joined the alarmed pair. She listened. She, too, heard the rattles. Whereupon the family went into action and called police (we pause to ask why F/m Dailey failed to summon his brothers-in-arms?)

Armed with a riot gun, Detective Walter Avel was on the scene instanter, along with other cops. After proceeding cautiously down the cellar stairs, fol-

lowed by the gendarmes and neighbors who had begun to gather at the unwonted influx of police, Detective Abel poked the bags of potatoes with his gun while another blue coat prodded with a rake. But there came forth no rattling —no snake.

A terrific onslaught onto the bags of potatoes by 'all hands' evoked no results except "mashed spuds." Then, as a final measure, the group removed the bags one at a time to the outer air and soaked them in a refuse can filled with water. Each was then dumped into a packing case. No soap—and no snake!

Deponent hath it the Dailey family had a very restless night on Aug. 23rd.—and haven't yet altogether achieved tranquility—nor will they until they know what happened to the snake—or, was it?

* * *

Hot Off the Tape

Edward Peer was one of a group of West Paterson, N. J., volunteer firemen sent out on an emergency call to rescue an 18-month-old boy who had fallen into the Passaic River. It proved to be his own son. All attempts to revive the lad failed. . . . In East St. Louis, Ill., Miss Rose Sels, 20-year-old one-legged girl, was a heroine in a fire that took three lives. Miss Sels, who lost her leg when stricken with polio, saved a boy 11, and his sister 6, from the burning building, in which the boy's mother and another daughter died. The boy eventually died. Miss Sels was burned in the effort. . . . In Amarillo, Tex., a wealthy spinster died in a night fire when she couldn't escape through a kitchen door that was jammed by papers and old fruit jars. Assistant Chief Dewey Morris said trash and old papers were stacked in house from front to back. . . . Mrs. William DeMarre, aged 84, who loved her pipe, died from burns she suffered when she fell asleep in a rocking chair while smoking. . . . Three small children burned to death in their locked home on October 9th, last, while their baby-sitter stepped out to a nearby store. . . . A Denver, Colo., Fire Department Rescue Squad was called to rescue a cat from a tree and upon arrival found the tabbie was not alone. Also in the tree and unable to return to terra firma was the pussy's mistress, Mrs. Lucille Ramsdell, 40. The Squad rescued both. . . . Walter Jakubowski, 45, was cleaning his shoes with denatured alcohol in a room on the 8th floor of the Paterson, N. J., YMCA. He had the urge to smoke. So he lighted a cigar. Boom! Mr. Jakubowski escaped from his room by sliding down an outside pipe three floors to the roof of an adjoining building. Thought they didn't allow alcohol in any form in the YM? . . . Out in Richland Center, Wis., Fire Chief Otto Kinzing hopes he has finally extinguished a fire which burned for two months in a 50-foot pile of sawdust. T'other day he blew up the fire with 12 sticks of dynamite and doused it with 60,000 gallons of water. . . . The Hitching Post restaurant, three miles west of Laurel, Md., on Route 198, was unhitched from its foundation Aug. 8, 1951, and destroyed by the explosion of a truckload of bottled gas. Six fire companies fought blaze, which caused damage estimated at $45,000. . . . There were anxious moments in Lincoln, Ill. If the local Brothers had been called to a blaze there mighta been a birth on the way. "Smoky," traditional Dalmatian of the Fire Department, came up with just one

NO INSTRUCTIONS NECESSARY WITH THIS EXTINGUISHER!

IT'S A RANDOLPH!

From bracket to blaze in split seconds! No valves to turn, no nozzles to adjust; just point and press your thumb and Randolph's cloud of snowy CO_2 kills fire completely!

Non-damaging Randolph CO_2 evaporates without a trace, is non-toxic, won't conduct electricity, deteriorate or freeze. And *all* Randolph Models are Underwriters' Approved.

A complete line of extinguishers and automatic systems

Learn how Randolph gives your plant panic-proof, positive fire protection! Write Randolph Laboratories, Inc., 19 E. Kinzie St., Chicago 11, Illinois.

RANDOLPH SIMPLIFIED FIRE EQUIPMENT

Build your own fire truck for a few hundred dollars

The time has come when rural fire protection should leave the "Fancy Dan" class so that every small community can do a real down-to-earth job of extinguishing fires rapidly, simply and inexpensively.

The nickel plate, red paint, gadgets and polish are good if you can afford them. But all you need for sound, economical fire protection is an Oberdorfer All Bronze Pump hooked up to the transmission of a dependable truck that carries a tank of water loaded with a good wetting agent.

Effective fire control starts just as soon as this outfit can reach its destination and a man can grab the nozzle end of the booster hose and get to the fire. The resulting penetrating stream of over 125 lbs. pressure is the fastest and most important phase of fire fighting.

Do you have a garage, a truck and a mechanic with a little common sense? We have the pump you need. Write for details.

PERFORMANCE DATA—No. 26 PUMP SHOWN ABOVE

Pump Shaft R.P.M.	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
1600	120	500'—1½"	15'	150

For complete specifications of this and other Oberdorfer All Bronze Booster Pumps, and name of your nearest distributor, write:

FIRE PUMP DIVISION OBERDORFER FOUNDRIES, INC., Syracuse, N.Y.

SPECIFY
dependable TRUMPET quality. This insignia on any fire fighting equipment is an assurance of precision construction and thorough engineering for a lifetime of service.
HOSE BRASS GOODS
VB LINE
THE WOOSTER BRASS CO. WOOSTER, OHIO
THE WOOSTER BRASS CO.
WOOSTER
OHIO

pup. All hands waited patiently because the puppy was born on the seat of the pumper. . . . In Queens, N. Y. C., James Campbell got sore because his wife refused to give him money to buy beer. So he got even by pouring naphtha over himself, and touching himself off, to become a human torch. He was pronounced DOA. . . . At Kiamesha Lake, N. Y., a bottled gas tank, touched off by a fire that destroyed a 40-room summer hotel, flew 1,500 feet through the air like a rocket. Blast was heard for two miles. Cause of the bustup, unknown. Loss about $100,000. . . . Speaking of bottled gas, four men were killed and three injured, one critically, in a propane explosion at the Atlas Crankshaft Co., plant in Fostoria, Ohio. . . . A mass of molten asphalt cascaded over two women, causing death of one, badly burning another, when a truck carrying 8 tons of the hot stuff got out of control as its brakes failed on a hill near Adams, N. Y. Heavy machine knocked down a power pole, somersaulted end-over-end, coming to rest on its wheels. The red-hot asphalt poured over the pedestrians. . . . Buffalo police charged 16-year-old Shirley Nasca with first degree murder after she signed statement admitting she set fire to a three-story apartment house causing the death of a man who tried to rescue a daughter who was already safe. Girl said she had had trouble with family and after she was slapped, set the fire.

What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of October, 1951.

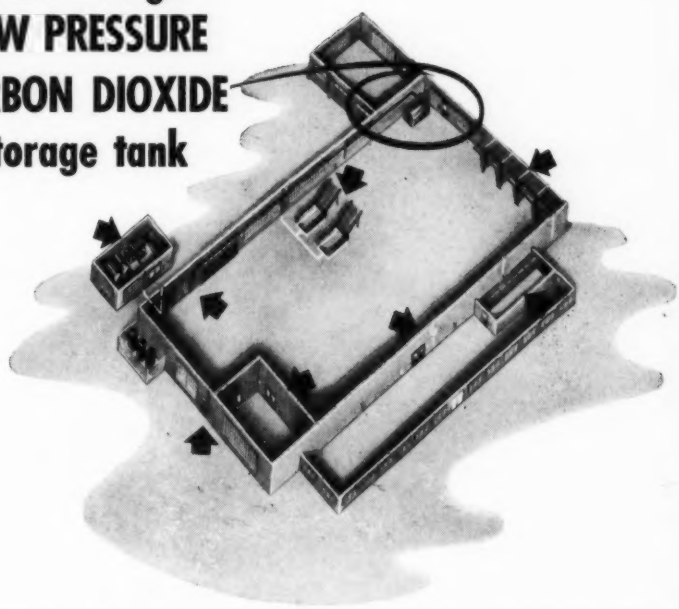
Month Ending October 31, 1951

Cordova, Alaska—Cordova whse. and adj. bldg. destroyed.
Florence, Ariz.—Florence Hotel destroyed. Cigarette.
Conway, Ark.—Hangar at Conway Municipal Airport owned by city; 18 planes destroyed.
Lake City, Ark.—Huckaby Gin Co. destroyed.
North Little Rock, Ark.—Food whse. owned by State of Arkansas destroyed.
Star City, Ark.—Lincoln Oak Flooring Co. plt. destroyed.
Arcadia, Cal.—Ranch house and garage owned by James H. Meece, destroyed. Spontaneous ignition.
Beverly Hills, Cal.—Five stores including hat shop of Designer Kenneth Hopkins, adj. Beverly Hills Brown Derby Restaurant, damaged.
East Palo Alto, Cal.—Durant Insulated Pipe Co. destroyed.
Emeryville, Cal.—Western Pine Supply Co. lumberyard destroyed.
Hanford, Cal.—Auster Fruit Co. packing house and grain elevator of Central Valley Cooperative, destroyed.
Isleton, Cal.—Pratlow Cannery destroyed.
Long Beach, Cal.—Long Beach Buick Co. plt. damaged.
Los Angeles, Cal.—98-foot seiner Western Queen in Los Angeles Harbor, damaged.
Los Angeles, Cal.—Cake Box Baking Co. plt. damaged.
Los Angeles, Cal.—Duromatic Products Co. plt. and adj. bldg. of Los Angeles Sales Co. housing ten offices destroyed and two adj. business blocks damaged.
Los Banos, Cal.—Bldg. at Sixth and J. streets destroyed, and dept. store, photography studio, liquor store and electric shop on street level damaged.
Maywood, Cal.—Filbar Furniture Mfg. Co. plt. destroyed.
North Sacramento, Cal.—Capital Paint Co. destroyed.
Red Bluff, Cal.—Macey & Co. feed store, whse. and elevator, destroyed.
Sanford, Cal.—Petit Paris Corp., lingerie plt. destroyed.
San Jacinto, Cal.—Ten business bldgs. in center of city destroyed. Losses included Sobodan Cafe, Kirkpatrick Market, San Jacinto Drug

Co., Gilbert's Five and Ten Cent store, Allen McMahon Cafe, Pool Hall and Bar adj., Jeff Devine real estate office, San Jacinto bakery and Romona Bowl Sweet Shop.
Vallejo, Cal.—Two bldgs. at Mare Island Naval shipyd. destroyed.
Visalia, Cal.—Sears Roebuck branch store destroyed.
Yolo, Cal.—Shed of Half Moon Fruit & Produce Co., seven railroad cars, two trucks, office and plt. supplies, destroyed.
Flagler, Colo.—Flagler High School damaged. Believed defective wiring.
Longmont, Colo.—Grain elevator owned by Intermountain Elevator Co., destroyed.
Richardson Park, Dela.—Starr Pharmacy damaged.
Augusta, Ga.—Planters Cotton Oil Mill damaged.
Atlanta, Ga.—Ten unit apt. house, 1635 Peachtree St., destroyed. Spontaneous ignition.
Baxley, Ga.—Bell & Miles Hardware store and Steedley's grocery destroyed.
Brooklyn, Ill.—Six bldgs. housing a tavern, restaurant, living quarters, damaged.
Chicago, Ill.—Morse Hotel and Ashkenaz Cafe taurant, living quarters, damaged.
Chicago, Ill.—Two-story office bldg. housing a drug store at Clark street and Diversey Parkway, damaged. Explosion in basement.
Chicago Heights, Ill.—Bldg. occupied by Watland Bros. Camera Shop, Triangle Home Supply Co., Miller Shoe Store and 12 offices, damaged.
Farmersville, Ill.—Farmers Exchange grain elevator destroyed.
Frankton, Ind.—Russell Wann & Son cannery destroyed.
Indianapolis, Ind.—Whse. of Goodyear Tire & Rubber Co. destroyed.
Madison, Ind.—Main bldg. of Clifty Falls Grain Mills, destroyed. Spontaneous ignition.
South Whitley, Ind.—Whse. of South Whitley Industries destroyed.
Hiawatha, Kans.—Adams bldg. occupied by Priebe & Sons poultry and egg dealers, destroyed.
Kansas City, Kans.—A & P Supermarket destroyed.
Franklin, Ky.—Jenkins & Wynne Motor Co. destroyed.
Henderson, Ky.—Barn on William Hodge farm destroyed.
Lexington, Ky.—Horse barn on Royce G. Martin's Woodvale farm destroyed.
Baltimore, Md.—Home Appliance Store damaged.
Baltimore, Md.—Kelly Clinic damaged.
Bethesda, Md.—Capitol Frito Co., Inc., plt. destroyed.
Edgewood, Md.—Enlisted Men's Service Club at Army Chemical Center damaged.
Essex, Md.—Lumber sheds of Guttenberger Lumber yd. and Supply Co., and H. J. Miller Sons, bldg. supplies plt., destroyed.
North Beach, Md.—Musical bar and adj. casino owned by Joseph E. Rose, destroyed.
Big Rapids, Mich.—Wolverine Wood Corp. plt. and a beer whse. destroyed.
Eau Claire, Mich.—Eau Claire Fruit Exchange feed mill destroyed.
Flint, Mich.—LaSalle Cleaners plt. damaged.
Grand Rapids, Mich.—Show Bar damaged. Believed cigarette.
Saginaw, Mich.—Bldg. of Flint and Pere Marquette Railroad, occupied by R. P. Lewis office equip. co. and women's shop, destroyed.
Saginaw, Mich.—Saginaw Service Parts Corp. bldg. in downtown district, destroyed.
Hibbing, Minn.—Howard Hotel in business district destroyed.
Batesville, Miss.—Colonial Cafe on Highway 51 South, destroyed.
Durant, Miss.—Landrum-Patridge Planing Mill destroyed.
Boonville, Mo. — Davis-Johnston-Patrick sales barn on U. S. No. 40, three miles west, destroyed.
St. Louis, Mo.—Bldg. occupied by M. E. Clark & Co., a wholesale electrical equip. concern, damaged.
Choteau, Mont.—General Mills grain elevator destroyed.
Glasgow, Mont.—First Avenue Garage and twenty cars of Charles Winders destroyed. Overheated stove.
Portsmouth, N. H.—Littlefield Lumber Co. damaged.
Long Branch, N. J.—Mansion Elberon owned by Aaron Shurman, destroyed.
North Bergen, N. J.—400-family Woodcliff Gardens Apt. damaged.
Sea Bright, N. J.—Dwelling owned by Stephen J. O'Connor, destroyed. Lightning.
Vaughn, N. M.—Mesa Motor Co. garage destroyed.
Albany, N. Y.—The Woodward Company's 3-story brick whse. destroyed.
Astoria, N. Y.—King Penny Variety Store destroyed.
Bayside, N. Y.—Manhattan Food Store destroyed and adj. pharmacy and furniture store damaged.
Coventry, N. Y.—Queens Dairy plt. destroyed. Explosion.
Geneva, N. Y.—Garage, apt. and adj. restaurant, damaged.

Plant-Wide Fire Protection

from a single LOW PRESSURE CARBON DIOXIDE storage tank



Now, your larger size fire hazards can be protected more efficiently at less cost, thanks to C-O-TWO Low Pressure Carbon Dioxide Type Fire Extinguishing Systems. Simple piping, running from one centrally located storage tank, instantly transports clean, non-damaging, non-conducting carbon dioxide anywhere in the plant area . . . to flammable liquids, electrical equipment, storage spaces, manufacturing processes and record vaults. Fire at any protected location is extinguished in seconds with an absolute minimum of expense and interruption.

Flexibility is the keynote of these new type C-O-TWO Fire Extinguishing Systems . . . the low pressure carbon dioxide storage tanks range in capacities from one to fifty tons . . . discharge facilities can either be manual mechanical, manual electric, automatic mechanical, automatic electric or a combination of these . . . especially installed to fit your particular needs. Future plant expansion is easily and economically provided for by initially installing an oversized low pressure carbon dioxide storage tank and adding the supplementary discharge facilities at a later date.

C-O-TWO Low Pressure Carbon Dioxide Type Fire Extinguishing Systems are built with the same superior design and high quality workmanship that have characterized C-O-TWO High Pressure Carbon Dioxide Type Fire Extinguishing Systems for many years. Whether it's fire detecting or fire extinguishing . . . portables or built-in systems . . . C-O-TWO means experienced engineering that assures you of the best type equipment for the particular fire hazard concerned.

So, with current expensive delayed replacements, why not let an expert C-O-TWO Fire Protection Engineer help you now in planning fully approved fire protection facilities for your various properties. Complete free information and descriptive literature is yours for the asking. Get the facts today!

C-O-TWO

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NEWARK 1 • NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada

Affiliated with Pyrene Manufacturing Company

MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

Squeez-Grip Carbon Dioxide Type Fire Extinguishers • Dry Chemical Type Fire Extinguishers
Built-In High Pressure and Low Pressure Carbon Dioxide Type Fire Extinguishing Systems
Built-In Smoke and Heat Fire Detecting Systems

WHEN YOU DRY HOSE THE "HARD WAY"

THIS IS THE EIGHT-BALL YOU'RE ALWAYS BEHIND!

Patented

Yes . . . the old fashioned hose tower IS the "hard way" . . . harder to use . . . costlier to build . . . and dries so slowly that the spores of mildew often begin their deadly growth before the hose is thoroughly dry. The result? Thousands of feet of good hose are ruined every month either because of neglect or because some departments have not learned about or availed themselves of Circul-Air.

FIRE HOSE IS EXPENSIVE—EXPENDABLE—AND HARD TO GET

CIRCUL-AIR THE AIR CONDITIONING FIRE HOSE DRYER,

circulates pre-warmed fresh air through wet, coiled hose at the rate of 5 to 6 air changes per minute. Circul-Air is designed to lengthen hose life, save man-hours and hard work—improve the appearance and functional design of new fire houses, and to save valuable floor space. NO OTHER HOSE DRYING METHOD IS SO FAST, SO EASY TO USE AND SO ECONOMICAL. AND—IT'S THE ONLY DRYING MEDIUM WHOSE ACTION IS FASTER THAN MILDEW.

THESE TOWNS . . . AND 1,000 OTHERS PROTECT THEIR HOSE WITH CIRCUL-AIR

AKRON . ALLENTOWN . BOSTON . BIRMINGHAM . BUFFALO . AUGUSTA CHICAGO . CINCINNATI . COLUMBUS . COLUMBIA, S. C. . DAYTON DETROIT . ERIE . FITCHBURG . FORT SMITH . GALVESTON . GREENSBORO . HOUSTON . HAGERSTOWN . JACKSONVILLE . KALAMAZOO KANSAS CITY . LAKE CHARLES . LOUISVILLE . LAFAYETTE . MILWAUKEE MIAMI . MEMPHIS . MERIDEN . NEW HAVEN . NEW BRITAIN . NEWARK NEW ORLEANS . NASHVILLE . OMAHA . OKLAHOMA CITY . PHILADELPHIA . PROVIDENCE . PENSACOLA . ROCHESTER . SEATTLE . ST. PETERSBURG . SHREVEPORT . TOLEDO . WHEELING . WINNIPEG . WASHINGTON YOUNGSTOWN

NEW HOSE DRYING MANUAL TELLS HOW TO DRY, STORE AND CONSERVE FIRE HOSE

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HOWE Fire Truck Equipment Meeting Every Service Since 1872
Centrifugal, Rotary and Piston Pumps Supplied
HOWE FIRE APPARATUS CO., 1402 W. 22nd St., Anderson, Indiana

Lake Placid, N. Y.—Summer camp and 13 room mansion of Bernard Neimeroff destroyed.
Ravena, N. Y.—Bartke's restaurant, on Route 9-W, a mile south, destroyed.
Syracuse, N. Y. — The Nathan Ullman Junk Whse. damaged.
Syracuse, N. Y.—Onondaga Pottery Co. whses. located in west end of city destroyed. Five small bldgs. across the street slightly damaged.
Tonawanda, N. Y.—One end of six-story wood and steel coal handler bldg. at plt. of Semet-Solvay Co. destroyed.
Jamestown, N. D.—Bldg. housing Jamestown laundry destroyed.
Columbus, Ohio—McClish Dairy damaged.
Columbus, Ohio—Rockwell Tools, Inc., plt. damaged. Oil splashing against heated furnace.
Galion, Ohio—Eagle Crusher Co. machine shop and storage room, damaged.
Johnstown, Ohio—DeKalb Agriculture Corp. plt. destroyed.
Niles, Ohio—First Methodist Church destroyed. Defective wiring.
Wooster, Ohio—Office bldg. and records of Boys Village, Inc., destroyed.
Oklahoma City, Okla.—Three bldgs. in northwestern business district, destroyed.
Eugene, Ore.—Hills & Madeau Lumber Co. destroyed.
Portland, Ore.—Roberts Motor Truck Co. destroyed. Explosion of ceiling light.
Portland, Ore.—Four-story postal bldg. housing Semler Sporting Goods store, Portland Music Co., Pan American Wallpaper Co. and Bon Ton Fountain, damaged.
Bonneauville, Pa.—Bonneauville Parochial School damaged.
Enola, Pa.—Terminal bldg. of Shirk's Motor Express Co. destroyed.
Lookout, Pa.—Bldg. on Henry Van Stemm farm destroyed.
Moxham, Pa.—Natl. Radiator Co. plt. destroyed.
Philadelphia, Pa.—Gallagher's Whse., destroyed.
Philadelphia, Pa.—Eight business places in Callowhill Produce section destroyed.
Sunbury, Pa.—Factory bldg. of Sunbury Wire Rope Co. damaged.
Upper Darby, Pa.—Stonehurst Apts. damaged and 12 stores destroyed. Explosion.
Camden, S. C.—Southern Tractor Mfg. Co. damaged.
Memphis, Tenn. — Carter Mfg. Co. and four dwellings destroyed.
Memphis, Tenn. — Firestone Rubber Co.'s retreading plt. damaged.
Trenton, Tenn.—Farmer's Gin Co. destroyed.
Borger, Tex.—First National Bank bldg. damaged.
Dallas, Tex.—East wing of St. Paul's Hospital destroyed.
Dallas, Tex.—Natl. Shirt Shops, Inc.; Dallas Natl. Bank Bldg.; Manuel's Tailors, Van Anna Beauty Salon, Hardy's Men's Shoes store and Dr. J. C. Kearty's dentist office, damaged.
El Paso, Tex.—Ice cream distributing company whse. destroyed.
Fort Worth, Tex.—Bldg. used for storage of air conditioning equip. and lumber by John F. Shawhean Distributing Co. and Thermal Engineering Co. damaged. Defective wiring.
Houston, Tex.—First Prize, Inc. food packaging plt. destroyed.
Houston, Tex.—Block-long plt. occupied by Parkerizing, Inc. of Texas, a rust-proofing concern and Wilbert Vault Co., makers of asphalt-lined burial vaults, destroyed.
Wortham, Tex.—Bldg. at corner of Main Street, Highway 14, occupied by Reese Implement Co., destroyed.
Rutland, Vt.—Four ice storage houses, garage and barn of Eddy Ice Co., destroyed.
Olympia, Wash.—Brady's restaurant and apts. destroyed.
Milwaukee, Wis.—Garage and seven trucks with machinist equip. at garage of J. J. Jones Co., millwork and hardware firm, destroyed. Three trucks owned by Sinclair Refining Co.
Milwaukee, Wis.—Four garages and shed destroyed.
Aldergrove, B. C.—Paradise Valley Co-operative Processors destroyed.
Mission, B. C.—Four business blocks destroyed.
Lakeburn, N. B.—Maritime district offices of Transport Dept. destroyed.
Bearmsville, Ont.—Two main bldgs. of Bartlett Spray Works destroyed.
Oshena, Ont.—Buckingham Manor apt. house destroyed and adj. Simcoe Manor apts. damaged.
Port Perry, Ont.—James Gondall, Ltd., seed and feed bldg., damaged.
Lennoxville, Que.—Plt. of Phillip Carey & Co., mfrs. of roofing and bldg. products, damaged.
Montreal East, Que.—Ideal Upholstering Co., Ltd., destroyed.
Noranda, Que.—Two bldgs. in mining center destroyed.
Quyon, Que.—Two hotels, the Fairbanks and Cobalt, restaurant owned by Dan Wong and genl. store of John Holmes destroyed.
St. Ferdinand D'Halifax, Que.—Employes' residence, barn and adj. St. Julien de St. Ferdinand D'Halifax Hospital destroyed.
Shawinigan Falls, Que.—St. Maurice Hotel damaged.

Brighton Explosion

(*Continued from page* 906)

Regarding Natural Gas

1. Education and instruction of members of the fire service are needed concerning the production, distribution, storage and use of natural gas (and all other types) and the hazards involved in each step (toxicity, explosion and fire).

2. There apparently is a serious lack of knowledge of standards concerning the installation of gas piping and gas appliances in buildings. Although the text for the American Standards Association covering "installation of gas piping and appliances in buildings, as a guide for municipal, state and federal bodies and others; as adopted by the NFPA in 1950, was approved by the American Standards Association Section Committee X21 that year, and subsequently approved by the sponsor, the American Gas Association, Inc., there appears little general knowledge and acceptance of these standards in the fire service.

3. The "Heselton" Bill, known as H.R.88, dated January 1, 1951, introduced into the House of Representatives, and which was referred to the Committee on Interstate and Foreign Commerce, should receive the support of all those concerned with promoting greater safety in the entire field of natural gas. This bill amends section 7 of the Natural Gas Act to authorize the Commission (FPC) to prescribe "such requirements, restrictions, and conditions, with respect to the construction, extension, operation, and maintenance of transportation facilities of natural-gas companies as, in its opinion, are necessary for the promotion of safety."

4. It is questionable whether or not the present policy (in some quarters) of utility companies in not wanting the public, and, in some cases the fire service to know the actual or potential hazards of natural gas (or artificial gas) is in the best interests of the public, and the fire service. There should be a meeting of minds on this score to work out policies. It has been proved in at least a few cases (notably Westchester County, N. Y.) that beneficial results can be secured by the use of proper educational publicity, and by meetings between the gas interests and the fire service.

5. Problems of conversion from low to high pressure installations increase the hazards of explosion and fire, as well as the threat to life through failure of certain old out-of-date gas operated appliances (witness the situation in New York City). The problems of conversion, and the effect on the fire service, should be included in the beforementioned educational programs.

6. Adequate protective features should be provided in all natural gas distribution systems—high or low pressure. These should be in the lines as well as in the homes.

7. Regulator vaults, or like high pressure gas pipe installations, should be so located as to offer the least possible exposure hazard to life and property in time of trouble.

8. It would be well for utility companies or their contractors working on major street (or other important) installations (with particular emphasis on repairs and replacements) to notify the local fire department of operations and possible hazards involved. This should

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FORT WORTH FIRE BADGE —right from the heart of Texas. Design features symbolic "lone star" and panther. A prize possession of the Fort Worth Fire Department.

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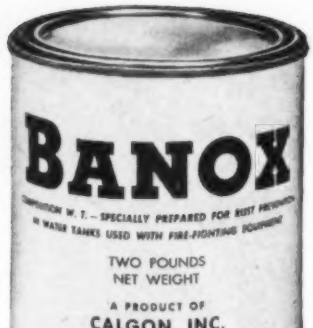

Now you can prevent costly rust or corrosion in your water tanks with new Banox (Composition W.T.). Specially developed to protect fire-fighting equipment, Banox has proven effective in preventing corrosion in all kinds of metal water tanks . . . in all types of water.

Here's what BANOX *does...*

- ★ Controls rust and corrosion scale in pumper and booster tanks and other water storage and hauling tanks used for fire protection.
- ★ Prevents clogging of fog nozzles due to rust and corrosion scale.
- ★ Reduces costly repairs and replacement of tanks . . . helps keep equipment clean and ready for instant use.
- ★ Effective in iron, steel, galvanized or painted tanks . . . with any type of water—hard or soft, stagnant, brackish or sea water.
- ★ Non-combustible . . . Non-toxic!
- ★ Harmless to the skin and clothing, to copper, brass, rubber, wood, paint and fabrics.
- ★ Banox is compatible with "wetter" water.

BANOX is economical and easy to use. One pound per 100 gallons of water — *one dosage protects the tank until the water is used.* Banox, Composition W.T., is especially prepared and packaged for use in water tanks of fire-fighting equipment.

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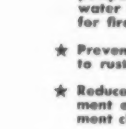
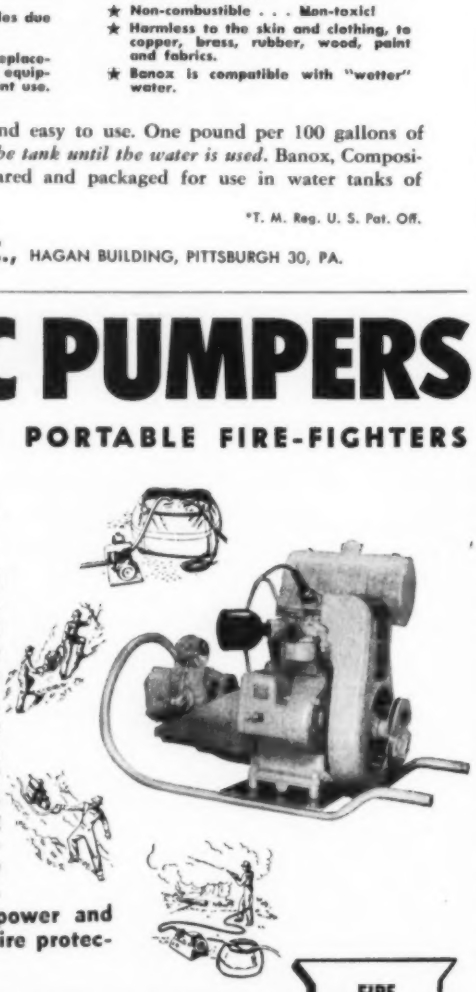
PACIFIC PUMPERS

AMERICA'S NO. 1 PORTABLE FIRE-FIGHTERS



The sure-starting WA-7, newest of the famous Pacific Pumpers and already an outstanding success in both private and public forest use, is light enough to be carried by hand to source of water, booster tank location, or fire area. It delivers 22 g.p.m. at 50 p.s.i. or 14 g.p.m. at 300 p.s.i., throws a high pressure fog for smothering tactics. Self-priming, positive displacement rotary pump, driven by 4-cycle air-cooled engine, gives you power and portability that mean real fire protection over a wide area.



Write for data on complete line of Pacific Pumpers, hose, accessories.

PACIFIC MARINE SUPPLY CO.
SEATTLE 1, WASHINGTON

FIRE EQUIPMENT DIVISION

result in providing better safeguards.

9. Many believe the location of all main and other key valves should be known to the fire department, together with complete instructions on when and how to operate them. This does not necessarily mean the general public must have this information. If and where keys or other facilities are required to locate and operate these valves, it conceivably could be good policy for the nearest fire forces to have them. Under certain conditions it may be impossible for utility crews to promptly reach the location, and by following implicit instructions, members of the fire service could save valuable time, and possibly lives and property by acting promptly to operate this safety equipment.

11. Inasmuch as natural gas, under pressure, is here to stay (over 60% of the nation is already being served by it) and the need of education and training of the fire service and related safety engineers in all measures of safeguarding the public from its real or possible hazards, consultations and discussions between all interests most concerned should begin without delay.

Fire Trucks Needed

Increased civilian and military demands for fire trucks in 1952 can be met if adequate materials are made available to manufacturers, the Motorized Fire Apparatus Industry Advisory Committee told the National Production Authority, U. S. Department of Commerce on Oct. 22.

An estimated 3,300 new motorized fire fighting units will be needed next year for municipalities, civil defense critical target areas and for the Armed Forces, the committee pointed out. This is an increase of 1,000 units over 1951 production.

Industry members explained that they are dependent on other manufacturers for various products needed to complete fire fighting units, particularly pumps. They expressed concern over a statement by one pump manufacturer that he had received, in the fourth quarter, 55 percent of materials needed to meet demands and was depleting inventories.

Because the equipment they make is highly specialized and requires considerable time to complete, producers urged that they be notified as far in advance as possible what their CMP allotment will be. They said a normal lead time for the industry is from six to nine months.

Committee members agreed that some substitution for critical materials is possible, but they differed as to the necessity of standardizing their products. Various areas require fire trucks of different design and size, several industry members said. It was agreed, however, that standardization would enable producers to manufacture a much larger number of trucks.

In order that industry's problems can be given more detailed study, the committee recommended appointment of a group to consider conservation, standardization, lead time, and controlled distribution of fire fighting equipment if materials shortages warrant such action.

NPA said it recognizes the importance of maintaining production of motorized fire apparatus and proper channeling of such equipment and added that it will consider the industry's recommendations.

Arthur L. Thorton, of NPA's Scien-

tific and Technical Equipment Division, presided.

These committee members attended: James O. Binford, American-LaFrance-Foamite Corp., Elmira, New York; Fred W. Beardslee, Mack Motor Truck Corp., Long Island City, N. Y.; Ernest L. Maxim, Maxim Motor Co., Middleboro, Mass.; Joseph G. Grossman, Ward La France Truck Co., Elmira, N. Y.; George R. Layden, Peter Pirsch & Sons Co., Kenosha, Wisc.; Lester W. Young, Young Fire Equipment Corp., Buffalo, N. Y.; A. B. Seigfried, The General Fire Truck Co., The General Detroit Corp., Detroit, Mich.; Rex Wisehart, Howe Fire Apparatus Co., Anderson, Ind.; Francis S. Brigham, Oren Roanoke Corp., Roanoke, Va.; P. E. Van Pelt, P. E. Van Pelt, Inc., Oakdale, Calif.; R. B. Sargent, Hale Fire Pump Co., Conshohocken, Pa.; D. H. Sanford, Sanford Fire Equipment Co., Syracuse, N. Y.; E. J. Noyce, John Bean Manufacturing Co., Lansing, Mich.

Chicago Ties in Civil Defense and Fire Prevention Week

Chicago Civil Defense groups joined with the fire service and armed forces to celebrate Fire Prevention Day, 1951, which, as any schoolboy knows, marks the anniversary of the great Chicago fire.

The demonstration represented the first practical test of Chicago's ability to face an air attack and, as usual, the fire defense exhibition stole the show.

The exercises opened at 11:50 A.M. on Oct. 8th with addresses by Mayor Kennelly and Federal Defense Administrator Millard Caldwell, and the introduction of representatives of the Armed Forces, and local public officials. These events took place in the Wacker Drive Exercise, the Drive having been closed to traffic at 10:00 A.M., at which time anti-aircraft guns were set up for public inspection.

The "red alert" was sounded at 12:03 P.M. by sirens mounted throughout the loop area, terminating the speaking, and bringing out the Wardens. It was announced that the "enemy" in the person of 25 Civil Air Patrol planes and four B-25 Bombers from Rantoul, Ill., were "attacking" the city. As the planes made passes over the area, the anti-aircraft fired "simulated" shells.

Smoke bombs, set off along the north bank of the river directly across from the Exercise Area on Wacker Drive, indicated a spreading fire caused by enemy bombs. The "white alert" sounded as the smoke spread, and the planes disappeared overhead. At this time, two of the fire department's fireboats and a score or more land companies took up positions and shortly sent up a "water-well" or "curtain" along Wacker Drive (see cover illustration) simulating an attempt to protect the loop from fire encroaching from the north. During the period of setting up the curtain, announcements over the P.A. system warned the public about flying spray and urged the audience to keep a safe distance.

The exercises served to test the loop's air raid warning system, consisting of 14 small sirens and others mounted on elevated and other structures. Sound measurements were made by Dr. H. C. Hardy, of Armour Institute, and associates. The entire operations were directed by former Fire Marshal, and now Director of Civil Defense, Anthony J. Mullaney, with the aid of Pat Kelly, Coordinator, and fire department officials.

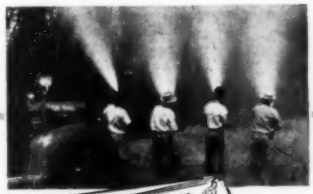
MYERS HIGH PRESSURE
Fog Fire Pumps and Guns

Myers Bulldozer Fire Pumps
CAPACITIES: 60, 40, 20 and 15 GPM.—PRESSURE: 800 LBS.

Three models—Giant (shown above), Triplex and Duplex. More power, less weight. Myers Fire Pumps are furnished with large, extra-heavy air chamber—All are perfectly balanced. Spring-loaded flat valves eliminate slippage — positive seating. Many other special improvements.

Myers Silver Spray Fog Fire Gun
CAPACITIES: 3½ to 27 GPM.—PRESSURES: 400 to 800 LBS.

Speedier, easier, single-control operation. No recoil. Durable, light-weight. All parts non-corrosive. Guns for long-distance fire fighting also available. All Myers Fire Guns supplied with discs to handle various capacities.



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WATER SYSTEMS · PUMPS · SPRAYERS · HAT TOOLS

Unequalled Dependability . . . Quicker Fire-Control

Fire Departments across the country are steadily changing to Myers high-pressure fog equipment. And it is preference well earned. Myers Bulldozer Fire Pumps have consistently won top honors for unfailing efficiency. They are precision-built; completely self-oiling; fully protected against wear; *proved* unequalled for lasting dependability and thorough atomizing—quicker, easier control of fires. Myers Silver Fog Fire Guns are equally outstanding in features for faster, more effective operation—with least effort and water damage. Full range of Myers Fire Pumps and Guns matches every requirement. Mail coupon for free catalog.

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Send free Fire Pump catalog:

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BAR-WAY HOSE COUPLINGS
FOR BOOSTER and HIGH PRESSURE FOG LINES

REMOUNTABLE — without the purchase of additional parts; use over and over again
FULL FLOW — no suppression of flow in coupling
HIGH PRESSURE — tested to 3000 lb., 500 lb. pull
INTERNAL EXPANSION — no shrinkage of hose at coupling
STREAMLINED — free from objectionable projections
ACCURATELY MACHINED — always the same . . . interchangeable

For maximum efficiency, economy and protection in ¾" and 1" sizes, specify Bar-Way couplings attached to hose of proper size.

WILL NOT FAIL

BAR-WAY MFG. CO.
STAMFORD, CONN.
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W. D. Rigdon
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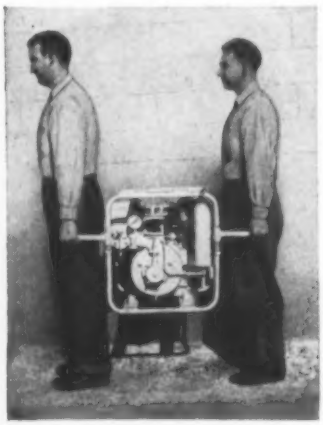
HALE Type FZZ

- Quick-Starting
- Portable
- Compact
- Powerful
- Versatile



Above—Frame-mounted FZZ can be easily carried by two men. It is also available mounted on rubber cushioned steel channels, or on two truck-type wheels.

Fire Companies frequently write us telling of the many practical ways they use their portable Hale type FZZ, such as the following:

- For fighting field or forest fires from moving trucks.
- For "wetting down" and standby use, thus releasing major equipment.
- For pumping out flooded cellars and elevator shafts after fire, flood or other emergency.
- For relaying water to pump or booster tank from sources inaccessible to major Fire Pumpers.
- For factory protection in fighting fires before major equipment arrives.
- For fighting oil or other type fires requiring foam. (Built-in foam proportioner available when specified.)

The FZZ will supply from draft, 60 GPM at 90 lbs. pump pressure; and 150 GPM at 30 lbs. Can supply two capable streams through 1½" lines, using nozzle tips up to ½".

Note: Discharge Adapter can be supplied for use with 2½" fire hose.

Write for new folder today.
Ask for Demonstration

HALE FIRE PUMP COMPANY
CONSHOHOCKEN PA.
Fire Pumps in All Standard Capacities

News of the Manufacturers

(*Continued from page* 916)

Kidde Opens New Test Building

A new building for testing fire extinguishing equipment under accurately controlled conditions has just been completed by Walter Kidde & Company, Inc., Belleville, N. J. Of fire-proof construction, it is forty by sixty feet, has a twenty foot ceiling, and is located adjacent to Kidde's proving ground.

In the new structure, Kidde engineers duplicate specifications for Underwriter's tests in fire extinguishing equipment and develop conditions in excess of these standards. By controlling the variables of weather and wind they are able to conduct more extensive experiments to find out exactly what a particular extinguisher or extinguishing agent will do against any kind of fire.

Kidde's outdoor "Proving Ground," with its electrical transformer, dip tank, pipelines, boat hulls, oil tanks, aircraft engine, etc., will still be used for mass demonstrations and testing of fire fighting techniques.

The new building will be used mainly for testing portable extinguishers, but it can be used for testing built-in systems employing carbon dioxide or other agents and for experiments with smoke detecting-fire alarm devices.

A twenty-foot square concrete floor is provided for testing and the surrounding area is covered with cracked stone. The concrete floor has a drain, with a trap at the entering end and another at the exit, which leads to a pit for accumulating waste water. The traps are designed to prevent flammable gases from backing up through the drain pipe to the fire area and to keep flammable liquids from draining into the accumulation pit.

A built-in carbon dioxide extinguishing system is installed for standby use or for test purposes. This system may be operated as a main and a reserve system or as a single shot. Cylinders are provided with valves, heads and controls so that the discharge may be stopped or started as desired. A built-in fog system, portable fog applicators, and portable foam equipment are also available.

Construction of the structure is of corrugated transite hung on a steel frame. Windows are all of the explosion proof type and doors are large enough to admit a truck. Ventilation is provided by eight overhead hatches, controlled from the test floor, which also permit escape of smoke and heat. A false ceiling is suspended from the steel framework over the central area to keep direct, intense heat from the steel frame and roof.

Extinguisher for Magnesium Flares

The engineering department of the fire extinguisher division of the Ansul Chemical Company has just published technical bulletin No. 27 explaining how magnesium flares can be extinguished quickly and safely with the new Met-L-X dry powder.

Explaining that ordinary extinguishing agents in most cases will cause such fires to burn even more violently, the bulletin points out that air terminal hangars and flight lines are exposed to an unusual fire hazard.

"When emergency flares are accidently discharged from a parked aircraft," the bulletin says, "the resultant fire of intensely burning magnesium can spread to adjacent combustible materials and cause extensive damage. Employees or firemen find that ordinary fire extinguishing agents not only fail to extinguish the fire but, in most cases, cause it to burn more violently.

"At the request of representatives from several air lines, tests were conducted to determine the effectiveness of Ansul Met-L-X dry powder as an extinguishing agent for these fires. The flares used in these tests were candles, type Wiley SA-8 (without parachutes), procured from the Kilgore Mfg. Company, of Westerville, Ohio.

"To simulate severe conditions as nearly as possible, tests were conducted on a damp concrete slab. The flare was laid on its side, the fuse ignited, and the fire allowed to burn for approximately one minute before extinguishment was attempted. When Met-L-X dry powder was discharged into the mouth of the flare, the fire was extinguished practically instantaneously. A secondary fire started by the flare could be controlled by an Ansul dry chemical fire extinguisher used in conjunction with the Met-L-X dry powder fire extinguisher.

"Since the flare casing has a slower burning rate than the flare, the casing protrudes approximately an inch beyond the surface of the flare. This shields the burning magnesium somewhat. Therefore, the flare must be approached from the front or slightly to the side and the stream of Met-L-X dry powder must be discharged directly into the mouth of

The facilities of this new building provide controlled conditions of weather and wind for experiment and testing of fire extinguishing equipment.

the flare. Due to the force with which the flame issues from the flare, the stream of Met-L-X dry powder must have considerable velocity in order to reach the burning surface of the flare and effect extinguishment. Near the end of the discharge period of the Met-L-X hand extinguisher, the stream velocity decreases and there may be insufficient force to penetrate to the seat of the fire. For these reasons the fire should be attacked correctly when the extinguisher is first used. (Maximum range of Met-L-X hand extinguisher is approximately 6 to 7 feet).

"Since fires of this type should be extinguished quickly, and since there is a certain technique required, a training program is recommended at locations where this hazard is present to show personnel the correct procedure for combatting fires of this nature.

Fyr-Fyter Introduces New Dry Chemical Extinguisher

A new addition to their line of fire extinguishers has been announced by Fyr-Fyter Company, Dayton, O. It is a dry chemical model, developed after long experimentation and test, which is said to meet such requirements of a dry powder extinguisher as range; preservation of powder; freedom from corrosion; simplicity of use; light in weight, and ability to discharge all of its contents.

Fyr-Fyter's Dry Chemical Extinguisher

The new product comes in 20-lb. (weight 14 lb. 12 oz. empty) 30-lb. (wt. 17 lbs. 8 oz.) Fully charged they weigh 37 lbs. 2 oz. and 50 lbs. 14 oz. respectively. They are tested to 500 lbs. pressure and built for rough usage. Pressure is provided by CO_2 pressure cartridges, operating pressure ranging from 150 lbs. initially to about 50 lbs at the finish. A large, easy-to-hold handle is provided for carrying and puncturing the pressure cartridge. Finger-tip nozzle control affords easy-controlled blasts of powder, and complete, quick shut-off. The large 2½-in. filler opening makes filling easy.

Phosphorescent Plastic Signs Aid Fire Defense

New type phosphorescent plastic signs that glow in the dark, originally developed for the armed forces, are made available to the fire service by Norco Products Manufacturing Co., a division

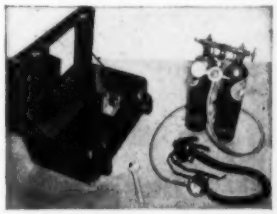
Protect Your Citizens with Better-Equipped Rescue Squads

Scott Demand Inhalator

THE new Scott *Demand* Inhalator provides efficient portable oxygen equipment for emergency use, *at low cost.* Offering "demand" flow of oxygen, plus constant flow if needed, the Scott *Demand* Inhalator can be used independently or as supplemental equipment in resuscitation, freeing resuscitators for use elsewhere.

The Scott *Demand* Inhalator is simply designed, easy to use. No adjustments of any kind are needed; department personnel does not require special training to use this new Scott product.

TYPE "A" Scott *Demand* Inhalator — portable, or for fixed installation in truck or ambulance (with or without cylinder)



TYPE "B" Scott *Demand* Inhalator including carrying case (with or without cylinders)

Here are the Outstanding Features of the New Scott DEMAND Inhalator.

SIMPLE. The Scott *Demand* Inhalator is easy to use — requires no special training. No adjustments are necessary — just a quarter turn of the cylinder valve and the Inhalator is ready to restore shock, immersion and heart-ailment victims.

EFFICIENT. With the Scott Inhalator oxygen is provided in ample quantity as "demanded" by the victim, conserving precious oxygen supplies. Constant flow also available when needed, "at the touch of a button."

LOW COST. In any one of several models the Scott *Demand* Inhalator is available at a cost well below that of other equipment of comparable scope. Investigate this new low-cost oxygen unit *now!*

Made by the manufacturers of famous Scott Air-Pak Safety Breathing Equipment.

Ask your distributor for FREE DEMONSTRATION, or write us today!

ESTABLISHED IN 1932 Scott FOR SAFETY—FOR SERVICE

ACCEPTED COUNCIL ON PHYSICAL MEDICINE AND REHABILITATION AMERICAN MEDICAL ASSOCIATION

MEDICAL DIVISION

SCOTT AVIATION CORPORATION

215 ERIE STREET, LANCASTER, N. Y.

CANADA: SAFETY SUPPLY CO. BRANCHES IN ALL PRINCIPAL CITIES
EXPORT: SOUTHERN OXYGEN CO., 157 Chambers St., New York 7, N Y

The DUAL FIRE FIGHTER

SPEEDS the WATER TO THE FIRE

Easily carried by two men to lake or stream where heavy truck can't go!

Water starts flowing **in 15 to 30 seconds,** by means of a simple exhaust primer.

Save the big pumper possible costly damage in trying to reach isolated water supply.

By relaying water to the truck pumper or in fighting fires direct, the **quick action** of the Dual Fire Fighter has won the fight against hundreds of fires

THE DUAL FIRE FIGHTER

- **Throws 100 gallons at 80 pounds pressure or 50 gallons at 100 pounds pressure.**
- **Delivers 200 gallons at 30 pounds to the pumper for two 1½ inch lines.**

Powered by an 8¼ HP 4 cycle air cooled engine

Write for information bulletin No. 9-FD-11

THE GORMAN-RUPP COMPANY
MANSFIELD, OHIO

FIRE FIGHTING'S UP-TO-DATE IN KANSAS CITY

"The Kansas City Fire Patrol Department have used Shuredry Salvage Covers during the past thirty years. During that time many thousands of dollars involved in valuable stocks, merchandise, and machinery have been saved from water damage during fires, and sprinkler system operations."

SAYS CHIEF W. H. GARDNER, KANSAS CITY FIRE PATROL

FULTON *Shuredry* ON THE JOB

Shuredry Salvage Crews everywhere are saving fire victims thousands of dollars with Fulton's Shuredry Green-Bak Salvage Covers. Approved by National Board of Fire Underwriters and by Factory Mutual Laboratories, Fulton Shuredry tops every test for water penetration and seepage, is pliable and easy to handle. Specify *Shuredry* on your next order to your fire equipment dealer. ***Use Fulton Triple-strength Tarps of a 1,000 uses—for garbage truck covers and protection of equipment and supplies exposed to weather.***

Fulton BAG & COTTON MILLS

ATLANTA • ST. LOUIS • DALLAS • DENVER
KANSAS CITY, KANS. • MINNEAPOLIS • NEW ORLEANS
LOS ANGELES • NEW YORK CITY • WINTER HAVEN, FLA.

of the James A. Norris Co. of New York City.

"Phosphor-Lites", as they are called were primarily intended for civil defense needs, but they have wide use in fire prevention and fire protection, it is disclosed. The phosphorescent signs retain 'borrowed' light and released it after the direct source of light is gone. They are made of phosphor-treated Geon, the polyvinyl plastic, developed by the B. F. Goodrich Chemical Co., laminated in two layers of transparent vinyl plastic, insuring durability and protection against dirt and deterioration.

According to Dr. Ann Mayer of the company, the signs retain an afterglow from eight to twelve hours, are visible from 15-20 feet and cannot be seen from the air. They are non-flammable, non-warping and guaranteed to last at least two years. They are printed in block letters of green, black or red, with blue-white phosphorescent background. Stock models bear the legends of "EXIT", "SHELTER" etc., but signs can be made to special order. Available with adhesive backs or with grommets.

Knapp Heads New York Office of National Foam

Appointment of Donald A. Knapp as District Sales Manager, New York office, is announced by Fisher L. Boyd, President, National Foam System, Inc., West Chester, Pa.

Donald A. Knapp

Mr. Knapp has extensive experience in the field of fire protection. He was formerly Insurance Surveyor with Bethlehem Steel Company for ten years. Prior to this, he was affiliated with the Board of Fire Underwriters of the Pacific.

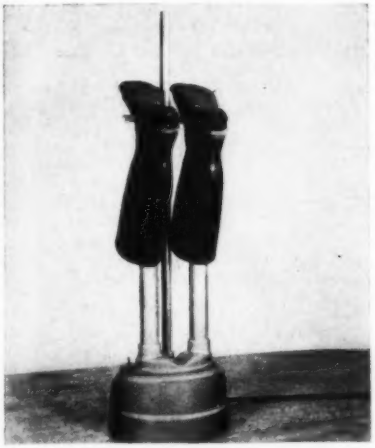
A graduate of the University of Nevada, Mr. Knapp holds an Electrical Engineer's degree. He is a member of the International Association of Fire Chiefs and the Society of American Fire Protection Engineers. He has held a membership in the National Fire Protection Association for 15 years, is Chairman of the Wetting Agents Committee, and a member of the First Aid Fire Appliance Committee and the Special Extinguishing Systems Committee.

New "Sani-Dri" Machine Speeds Drying of Boots and Shoes

The Chicago Hardware Foundry Co., 3501 Commonwealth Avenue, North Chicago, Illinois, announces development of a new "Sani-Dri" boot and shoe dryer, production of which will be

started shortly. Developed to meet the need for a quick, economical method of drying boots and shoes, this machine has many uses in the fire service.

Drying is accomplished quickly with a 125 cubic foot per minute air stream heated by a 13.5 amp element with a 5300 BTU output. The boots are placed on the boot bracket over the metal tubes; drying is finished quickly by the heated air blowing into the boots. Complete protection to the machine is provided by a sensitive circuit breaker to protect the heating element from excessive overloading.



New Sani-Dri boot and shoe dryer.

The new "Sani-Dri" is a portable model with Aluminum Hammeroid finish that operates either on AC or DC current. A toggle switch, manually operated, controls the machine, which comes equipped complete with drying tubes and adjustable boot bracket.

New Siren by Federal

Federal Enterprises Inc., Signal Division, has announced a completely new coaster siren for emergency vehicles. Designated the "Q" class, the new siren is described as "having the most powerful tone of any siren on the market." It is powered by a new motor which, according to the company, "produces greater sound volume with less current than many smaller sirens."

New Q Class Federal Siren

The Federal "Q" siren comes in two models: the "Q-2" in streamlined, chrome-plated housing for outside mounting, and the "Q-1" for underhood or behind radiator-grille mounting. Electric brake is optional at extra cost and 6 or 12 volt models are optional. A standard bracket for mounting on any flat surface is included in the price.

LISTEN CURLEY... THAT'S ONE EXTINGUISHER YA' DON'T HAVE TO WORRY ABOUT GETTING WET!

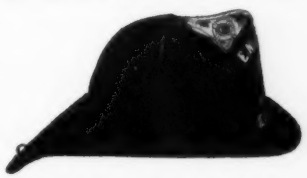
That's right! Ansul Dry Chemical Fire Extinguishers are Water-tight. Thousands of Ansul Extinguishers stand guard over difficult fire hazards in locations where the extinguisher cannot be protected from the weather.

For installations where extinguishers cannot be pampered with expensive shelters, water-tight construction is essential for dependable fire protection. That's one reason you see so many more Ansul Dry Chemical Fire Extinguishers in outdoor locations protecting all sorts of tough hazards associated with the petroleum industry.

SEE PAGE 921

LEATHER HELMETS

Nothing has ever equaled the stand-up-ability of these rugged helmets, made of tough top-grain leather specially processed to give strength and heat resistance. With the CAIRNS SELF-ADJUSTING CUSHION LINING, they afford the utmost in protection, comfort and durability.



Made in both Regulation and Drop Brim type — with 8-comb or solid one-piece crown.

Outfitters to Firemen Since 1836

CAIRNS & BRO. INC.

ALLWOOD, CLIFTON, N. J.

DEPARTMENT RECORD BOOKS

Order yours now, in readiness for 1952, from our complete high-quality line: Loose-Leaf Fire Records, for from 375 to 1500 alarms; Secretary's Record Books, with removable leaves for typing if desired; Secretary's Blank Forms, Notification Cards, Certificates, etc., for every purpose.

Write for CATALOG 341

Janesville

JANESVILLE QUALITY TURN OUT CLOTHING

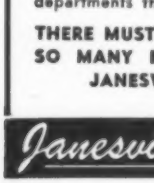
Our turnout suits are giving excellent satisfaction in most of the large fire departments throughout the U. S. and

THERE MUST BE A REASON WHY SO MANY FIREMEN INSIST ON JANESVILLE QUALITY

Janesville APPAREL CO.
JANESVILLE, WISCONSIN

Floodlighting
WHERE YOU NEED IT!

ONAN Portable ELECTRIC PLANTS



EASILY CARRIED
Lightweight and compact, Onan Electric Plants can be hurried to the spot where needed. Supply current for floodlights, electric saws, drills and other tools. Always ready for instant use.

FIT INTO SMALL SPACE
Compact, self-contained Onan Electric plants can be ordered as standard equipment with many makes of new fire trucks. Just a few square inches of mounting space required for installation on old trucks.

Write for FREE Folder!

Special folder describes many lightweight models for fire department use. D.C.: 750 to 5,000 watts. A.C.: 400 to 3,000 watts. Large, water-cooled plants for emergency operation of signal systems to 35,000 watts.

Onan
D.W. ONAN & SONS INC.
5688 University Ave., Minneapolis 14, Minn.

For Practical Discussion of Current Fire Department and Fire Management Problems

CIVIL DEFENSE PROGRAMS OF FIRE DEPARTMENTS

THE discussion in this Round Table is a continuation of that which appeared in the August, September and October issues on Civil Defense programs of fire departments.

The generous response from our readers make it necessary to carry over the discussion to this issue.

Readers are invited to send in their comments on this subject which is described in the box below or on next month's subject which is described in a box on a subsequent page. Address replies to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

Discussion of the Question

R. C. Malmquist, Chief, Minneapolis, Minn.: We have set up a Civil Defense program designed to govern the action of the Minneapolis Fire Department in the event of a bombing raid and to set forth the organization and training procedure for auxiliary firemen, and auxiliary rescue squads, civilian fire guards and other organizations necessary to civilian defense.

A plan has been put into effect for the dispersal of apparatus in the event of an air raid.

In case of a bombing attack, this department would be a member of a mutual aid group, along with the St. Paul department and the various adjoining towns and villages. To this end, we have catalogued the equipment of these departments.

Our plans also call for the establishemnt of a rescue service of 500 members. These members will be given first aid training for 20 hours and will also be given lectures and practical training in the following:

1. Releasing living persons trapped beneath debris or in damaged buildnigs which are not on fire.
2. Rendering emergency field care to such persons and to transport them to an ambulance or to a safe place nearby.
3. Maintaining close coordination with the ambulances and mobile medical teams of the emergency medical service so that the serious casualties recovered from debris may have immediate clearance to hospitals and minor casualties to casualty stations.
4. Recovering the bodies of people killed in collapsed or damaged buildings.
5. Taking the immediate steps necessary for the demolition or temporary support of damaged structures, the collapse of which may endanger life, or hinder the work of the squad itself or of other services.
6. Instruction in ladder practice, knot tying, extinguishing incipient fires, etc.

We have enrolled auxiliary members in our fire defense setup and are still attempting to secure more. Our defense plan calls for the enrolling of 1,000 auxiliaries to make up twenty auxiliary fire companies.

It has been recommended that training be given auxiliary firemen in three stages, each designed to meet a definite need. Three stages of training and the level of work for which it will prepare the men, are as follows:

1. Initial training — To prepare auxiliary firemen for immediate use in case of an air raid, their work at this level to be limited to ground work and to include such operations as laying hose lines and handling hose, carrying, raising and placing ladders and the handling of fire extinguishers of different types.
2. Advanced training—To further prepare auxiliaries for the more hazardous operations of fire fighting, such as that of climbing ladders, entering buildings, advancing hose lines, and such other operations as are incidental to fire extinguishment.
3. Supplemental training—To further increase the efficiency of the auxiliaries in not only aiding but relieving the regular firemen. Although set up as a separate division, any subject listed as supplemental training, may be given in either the Basic or Advanced Course, if and when needed to meet the local needs. Supplemental training will serve also as an interestholding measure.

Under our Fire Department Defense

HERE IS THE TOPIC

1. **Has a Civil Defense program been initiated in your city?**
2. **Briefly, of what does it consist?**
3. **Is your fire department a member of a mutual aid group?**
4. **Have you endeavored to enroll, volunteer, or auxiliary members in your fire defense set-up?**
5. **Have your efforts been successful?**
6. **If not, what do you believe would be the solution to this part of the program of Civil Defense?**

Plan we have given the assignments of the various companies should an attack take place. The Fire Prevention Bureau will stand ready to man fire fighting apparatus or assist the fire fighting force if necessary. They will act under orders of chief of the bureau, assistant chief of the bureau, or any other chief officer where emergency duty is required. Their duties will include checking on extension of fires and exposures, rupture of water mains, emergency water supplies, unusual hazards, etc., reporting on such matters to control center or as otherwise directed. In the event of telephone service and alarm system being knocked out, fire prevention cars equipped with radio could be used for patrol duty.

Fire brigades in industrial plants, hospitals and large business establishments are being organized as fast as our limited personnel will permit. Lectures on fire prevention and demonstrations are being conducted on how to handle and use all types of fire extinguishers.

Members of the Arson Squad will carry on a system of schooling in the fundamentals of Arson and Sabotage investigation and detection for industrial plant fire brigades and also for members of organized fire and police departments in the area immediately adjacent to Minneapolis. This schooling will stress the importance of careful observation of conditions at all fires or explosions, and the preservation of any evidence found which might lead to the apprehension and prosecution of any person or persons responsible, should the fire prove to be incendiary.

We have also planned for an organization of fire guards and the training of these guards in the fundamentals of fire extinguishment and fire prevention, the use of first aid fire fighting equipment and appliances, the extinguishment of incendiary bombs, the shutting-off of electric and gas services in buildings.

Our plan also includes the utilization of the communications system of the Minneapolis Fire Department.

Our efforts to recruit auxiliaries have not produced the expected results. There seems to be an apathetic attitude of "It can't happen here." The number of auxiliary workers in our files is far short of what we will actually require for a bombing emergency.

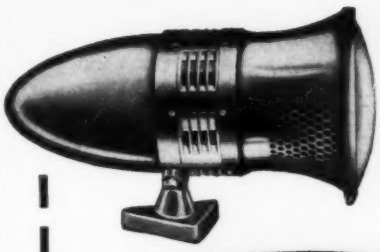
If our daily papers would give us increased and continuous publicity along with some financial assistance from the State and Federal governments it would help greatly in achieving our goal.

Michael H. Lots, Chief, Baltimore, Md.: Our Civil Defense program provides for the dispersal of personnel and fire apparatus to prearranged strategic locations upon alert warnings. This plan has been put into operation several times.

We belong to a mutual aid plan which includes surrounding counties under the State plan for Civil Defense.

We have received 165 applicants for fire auxiliaries in six months. We have requested 5000. Apparently there is a lack of interest on the part of civilians as to the importance of the setup.

Newspaper and other means of pub-



MODEL 20 SIRENLITE for Emergency Vehicles

Siren sounds a penetrating warning, red light automatically flashes authority. Traffic opens instantly, day or night. FREE ROLLING feature.

STERLING SIRENS

■ HANDSOME
■ RUGGED
■ RELIABLE

Built by proud craftsmen to the highest standards of precision manufacturing . . . utilizing materials of finest quality . . . Sterling Sirens give year-after-year of unsurpassed dependability and satisfaction.

MODEL M GENERAL FIRE ALARM SIREN for Volunteer Systems

Quick acceleration, power-plus . . . Model M really gets the boys out in a hurry! Used by championship companies from coast to coast. A dependable, heavy-duty siren built of the finest materials throughout.

Complete line of Siren Equipment • *Bulletin on Request*

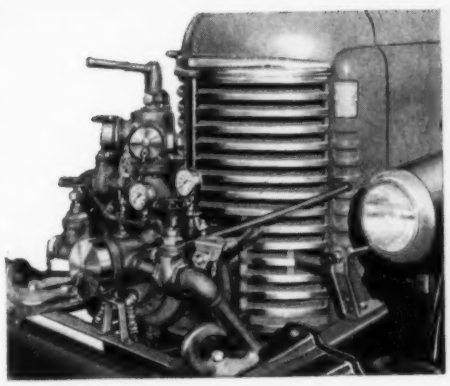
THE STERLING SIREN FIRE ALARM CO., INC.
58 ALLEN ST., ROCHESTER 6, N.Y.

SEE WHAT YOU CAN DO
using a BARTON-AMERICAN UA FRONT-MOUNTED PUMP!

First, you can use a *larger booster tank* on a standard truck chassis. You can *get closer to the water supply* and *refill booster tank fast* at 600 G.P.M.

You can *"fight your way in"* with fog gun at 400 lbs. pressure — using a straight stream at the *same time* if needed. And you can fight grass fires *"on the go."*

All this — and more — you can do *more effectively* with the Barton-American UA Front-Mounted Pump. It meets all Underwriters' tests.



UA is front-mounted . . . gear-driven . . . FROST-PROOF . . . positive priming.

GET FULL DETAILS . . . WRITE FOR BULLETIN 8330!

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Canadian Apparatus Plant: American-Marsh Pumps (Canada) Ltd. Stratford, Ontario, Canada

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BADGES

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Service
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EVERSON-ROSS
68 CHAMBERS ST. NEW YORK 7, N. Y.

Fires won't wait while you struggle with unwieldy hose.

That's why experienced firefighters have preferred *Hewitt Fire Hose* for over 75 years!

They know it is light and flexible for fast action . . . yet rugged for long life. They know, too, that its quality construction minimizes elongation and twisting . . . assures high burst-resistance.

Learn how *Hewitt Fire Hose* can help you. Write today.

HEWITT RUBBER DIVISION
240 Kensington Avenue, Buffalo 5, New York

HEWITT FIRE HOSE

HEWITT-ROBINS INCORPORATED

licity should be employed to create greater interest on the part of civilians as to the importance of the setup under emergency conditions.

C. A. Middlekauf, Acting Fire Chief, Houston, Tex.: Colonel A. W. Snyder has been appointed Civil Defense Director and is in the process of working up a complete C. D. program for the City of Houston.

We are developing a mutual aid program with the cities in 13 adjacent counties which has been designated as District 11 of the State Civil Defense program.

We have taken some applications but an all-out drive for auxiliary members has not been instituted as we are waiting for the defense director to complete his organizational program. When the proper publicity is given this program, we expect our efforts to be successful.

Jeremiah McAuliffe, Chief Fire Marshal, Chicago, Ill.: We have initiated a Civil Defense Program in Chicago. It consists of a director and co-director and committees of the various departments of the city and utility companies.

We are part of a mutual-aid group. Our efforts to enroll auxiliary members in the fire defense setup have been successful.

Anthony J. Mullaney, former Chief Fire Marshal and now Assistant Fire Commissioner is Director of the Civil defense Program.

Walter G. Strickfaden, Chief, Columbus, Ohio: A preliminary Civil defense organization has been set up here.

We have endeavored to recruit auxiliary members for the fire defense setup, but we have had very poor response.

I believe the Federal, State and County governments should provide adequate funds for training and actual C. D. necessities.

J. F. Finnegan, Chief, Richmond, Va.: A skeleton Civil Defense organization has been set up here in Richmond. We are part of a mutual aid group and have endeavored to recruit auxiliary members for the fire defense end, but to date have been only partially successful.

It is my opinion that the Federal Government should state the true conditions insofar as the possibility of air attack is concerned and appropriate the necessary funds.

John F. Collins, Chief, Cambridge, Mass.: We have a Civil Defense program in force in our city, but our efforts to enroll auxiliary firemen have not been successful.

I believe the solution would be to draft men for this job.

Paul C. Fontaine, Chief, Fort Worth, Tex.: Our Civil Defense program includes training first aid workers and auxiliary firemen. So far as we have gone, our efforts to enroll volunteers have been successful. We are part of a mutual aid group.

James T. Blamey, Chief, Spokane, Wash.: Our Civil Defense program provides for the dispersal plan in case of attack. We are part of a mutual aid group under the Civil Defense Plan only.

Our efforts to enroll auxiliary firemen have not been successful.

I don't believe we will have a successful program until both the Federal and State Governments give us a plan that will explain exactly what is ex-

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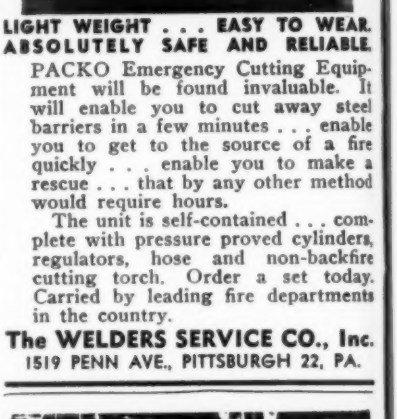
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HERE IS THE TOPIC FOR THE NEXT ISSUE

Now that federal funds have been made unavailable indefinitely for joint purchase of fire apparatus for civil defense use, many municipalities are embarking on their own programs without counting on federal aid.

1. **What is your present plan with respect to fire apparatus purchase for civil defense as well as peacetime use?**
2. **Is your city going ahead "on its own," or does it plan to wait, in the hope that Congress will ultimately vote funds for joint purchase of fire apparatus?**
3. **In the event that Congress continues to turn down appropriation requests from Federal Civil Defense Administration for fire apparatus, will your fire department find itself in a difficult position in view of the fact that fire apparatus builders are seriously delayed in turning out apparatus today?**

pected to us. There is too much uncertainty and confusion now.

R. L. Woolard, Chief, Norfolk, Va.: Our Civil Defense plan provides for a public affairs program, attack warning system, shelter protection, warden service, mutual aid and mobile support, fire fighting services, rescue service, communications, etc.

We have endeavored to enroll auxiliary firemen but our efforts have not been successful.

No Civil Defense program will be effective on the local basis until such time as citizens awaken to the necessity of such a program and assume their responsibilities. Perhaps they will not do so until intelligent leadership comes from the Federal level accompanied by more than token appropriations. Failure of Congress to assume their responsibility in fiscal matters is reflected in the thinking of the people. Too many are asking whether Civil Defense is necessary. This question stems from the failure of Congress to act as recommended by the Federal Civil Defense Administration.

John C. Cost, Chief, Philadelphia, Pa.: Our Civil Defense Plan includes a number of divisions to cover any contingency.

We are part of a mutual aid setup which includes Bucks, Chester, Delaware, and Montgomery Counties in Pennsylvania, and Burlington, Gloucester, Camden and Mercer Counties in New Jersey.

Our efforts to enroll auxiliary firemen have not been too successful. We plan through the Public Relations Division of the Civil Defense setup to run a campaign for recruiting some 5000 auxiliary firemen by means of public demonstrations using where possible the already recruited auxiliary

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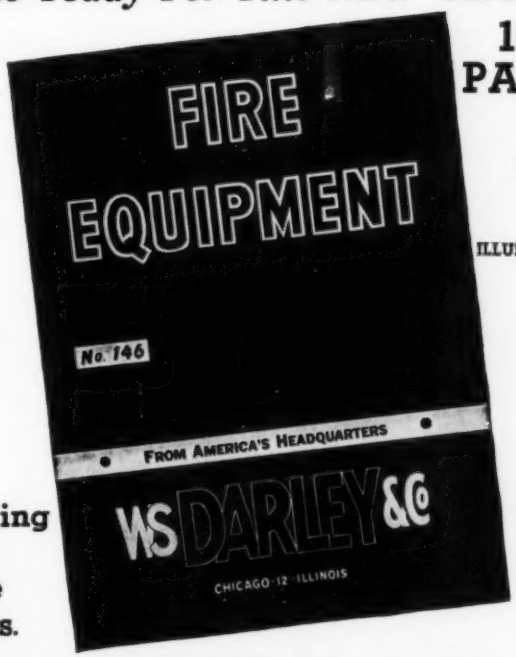

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firemen. If this fails, I don't know what the solution would be. There seems to be a general apathy among citizens and the feeling that it can't happen here.

Edward Grenfell, Chief, Bureau of Fire, Portland, Ore.: Our Civil Defense Program consists of a Director and Executive Director. Under them are nine deputy directors in charge of the following: Survey-Supply-Rescue; Police; Fire; Medical; Water, Utilities; Property, Records Preservation; Public Works; Transportation and Evacuation; Welfare.

The organization and training have been progressing satisfactorily. Some apathy has been encountered on the part of the public. This has retarded the effort somewhat in the departments depending entirely on volunteers. However, in the Fire Service we have been quite successful in recruiting volunteers for our auxiliary. Our recruits were obtained mainly by sending regular firemen door to door in their respective districts, asking for volunteers.

We have, at present, about 300 men who are receiving training and about one thousand applications that are being screened and processed. We believe that from the men we have in training and from the applicants we have for enrollment, we will eventually emerge with an auxiliary fire fighting force of about seven or eight hundred men. This, together with our excellent mutual aid arrangement, we feel will give us a fair amount of protection for most contingencies.

John G. Carlisle, Chief, Corpus Christi, Tex.: Our Civil Defense program makes provision for rescue work, maintenance of law and order, fire protection and precautions, welfare and health services, transportation, removal of debris, etc.

Our department is part of a State Disaster Relief program.

We cannot enroll auxiliary firemen until such time as equipment and personnel are available to train.

I believe funds should be appropriated to take care of actual expenses.

Henry G. Thomas, Chief, Hartford, Conn.: Our Civil Defense set up consists of the City Manager, a director appointed by the City Manager and deputy directors of Police Division, Fire Division, Health Service Division, Legal Administration Division, Civilian Relief, Public Works Division, Warden Services Division, Communication Division.

We are part of a mutual aid setup. Our efforts to enroll auxiliaries have been fairly successful.

I believe that the solution to this part of the program is to educate the general public to the need for volunteers to serve under the various divisions.

Lorenzo J. Jones, Chief, Duluth, Minn.: A very good program of Civil Defense has been set up and several meetings have been held with good results. Our program is headed by a Director and Deputy Directors who include the Fire Chief, Police Chief, doctors, nurses, transportation head, radio supervisor, block wardens, radioactivity experts, those in charge of shelter assignments and warning information.

We have enrolled men over military age as auxiliary firemen. We conduct 1½-hour drills with these auxiliaries

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on the handling of hose, connecting to pumpers, to hydrants, etc. We plan to have a group in every section of the city where there is a fire hall.

This cold war could drag on for several years. Therefore, you can't get all steamed up and then go flat. You must keep the auxiliary men interested as well as the general public. The State and Federal Governments should assist by purchasing the needed equipment. The public will look to the firemen for help if the bomb is dropped as they do now when disaster comes.

Terence Mulligan, Chief, Sacramento, Cal.: A Civil Defense Plan has been initiated in this city. It consists of thirteen divisions who are responsible for law and order; fire fighting (with light rescue teams); public works; medical and health; radiological monitoring; transportation; utilities (gas, electric and water); communications; personnel and recruitment; Red Cross; procurement and supply; warden service; welfare service (temporary shelter and housing).

We are part of the State of California Civil Defense Mutual Aid Plan and also have agreements with Sacramento and Yolo Counties.

We have endeavored to enroll volunteer members in the fire defense setup by means of newspaper publicity and speaking engagements to groups, but to date only thirty-six volunteers have been obtained out of 200 originally requested.

Dropping an "A" Bomb might tend to dispel the apathy that is generally displayed by the citizenry—the very people who should be vitally interested in the preservation of their families, themselves, the State and the Nation.

James T. Coslett, Chief, Bureau of Fire, Pittsburgh, Pa.: Our Civil Defense Plan consists of four units, namely, Engineering—Rescue and Transportation; All Medical; Protective Services, Fire, Police, etc.; Area Organizing.

We are a member of a mutual aid group. We have endeavored to enroll auxiliary members for the fire department, but have not been too successful.

Forrest B. Lucas, Chief, Dayton, Ohio: Our Civil Defense Plan is organized with director and assistant director who are responsible to the legislature. It is further broken down into divisions covering all services.

We are not a member of a mutual aid setup.

We have recruited auxiliary firemen, but have had only limited success.

I believe a well-directed program, from the federal level, is necessary to solve this problem.

F. E. Wood, Chief, Wichita, Kans.: We do have a disaster plan in effect in this city. We are members of a mutual aid group. We started to enroll auxiliary firemen on June 11th and on June 18th, a week later, had received only 27 applications. It is certainly not very encouraging at this time.

G. L. Simpson, Chief, Phoenix, Ariz.: Our Civil Defense program is still in the planning stage. At the time it is being handled by a separate agency other than the Fire Department.

Franklin B. Sanborn, Deputy Chief in Charge, Division of Civilian Defense, Boston, Mass.: A Civil Defense program has been initiated in this city. A full-time Director has been ap-

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pointed by the Mayor, and all other branches are being organized.

We are members of a mutual aid group.

Our efforts to enroll auxiliary firemen have only been partially successful. Two things are necessary before this phase of the program can be successful. They are the providing of equipment by the Government for auxiliary forces and the enactment of protective legislation for auxiliaries.

William C. Garvin, Chief, Yonkers, N. Y.: We have instituted a Civil Defense program in this city. It covers all branches of C. D. work.

We are members of the Westchester County Fire Chiefs Emergency Plan and thus are a part of a mutual aid setup.

We have tried to enroll auxiliary firemen, but have not been successful.

I believe every able-bodied member of each branch should be required to take a basic fire training course. The community should provide protective clothing for members and should accept financial responsibility for loss of life or injury sustained during training or while on active duty. Insurance companies might be approached with a view to offering a special policy to the personnel of all branches of Civil Defense so that the individual could protect himself to whatever extent he desires or can afford. The latter is in addition to the protection suggested above. Perhaps the Government might offer an insurance along the line of that provided to men in military service.

Clarence J. Bassemier, Chief, Evansville, Ind.: A Civil Defense Plan has been initiated in our city. It is organized along the lines of the block system.

We have mutual aid arrangements with surrounding towns.

We have endeavored to enroll auxiliaries but have had little success as the interest is not there.

The propaganda in the papers makes it very hard to overcome the lack of interest in this vital program. I believe that if the papers were not so contradictory, we might have better success.

John Pavlik, Chief, West Milwaukee, Wis.: We have recently passed an ordinance to provide for the establishment of a municipal defense council which is to be made up of the Village President who will serve as Chairman of the Defense Council and the Chiefs of the Fire and Police Departments serving as Deputy Directors. It also provides for the appointment of not more than fifteen additional members.

J. H. Burke, Chief, Oakland, Cal.: We have set up a Civil Defense Plan under the chairmanship of the Mayor. The City Manager is Commander and Vice-Chairman. A coordinator is also provided.

Essential services on the city and district level are handled by four assistant coordinators who are in charge of law and order and fire protection; engineering and public works, transportation evacuation; communications, power and light, water supply; radiological, bacteriological, chemical, public health and sanitation, medical aid. Another assistant coordinator works through the Red

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Notice is hereby given that the Board of Township Trustees of Willoughby Township, Lake County, Ohio, will offer at public auction at the office of the Township Trustees at 37 Third Street, City of Willoughby, on the 8th day of December, 1951, at 10:00 o'clock AM Eastern Standard Time, the following described fire equipment belonging to the township:

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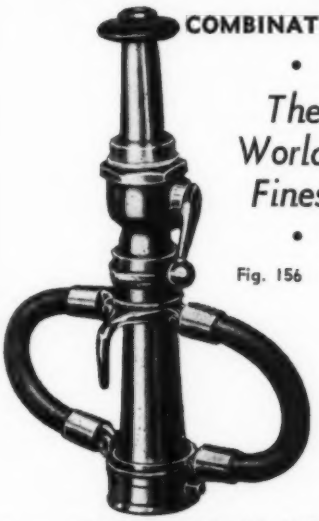
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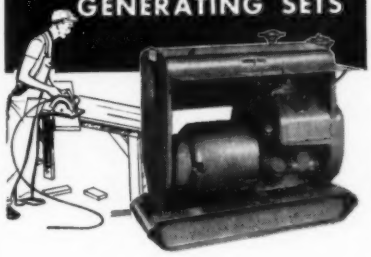
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We are part of a mutual air group along with other Alameda County fire departments.

Our efforts to enroll auxiliary firemen have not been successful. The people are indifferent, and the majority of those who apply want to be auxiliary policemen. Many of those who have signed as auxiliary firemen drop out after a time.

We have expanded our first line reserve equipment and have added a number of auxiliary pumps (500 G. P. M.) mounted on commercial trucks. Similar pumps, mounted on trailers are assigned to two-piece companies. These, with the hose tender, provide additional engine companies in an emergency. We believe that with the off-shift regulars, plus auxiliary firemen, we will be able to operate as satisfactorily as can be expected.

George T. Morgan, Chief, Wilmington, Dela.: We have set up a Civilian Defense Plan in this city and belong to a mutual aid group.

Our efforts to enroll auxiliary firemen have not been successful. We have appealed to the public by radio, television, the press and in various organization meetings, and from September, 1950 to the present date, have had only 25 men sign up for the job of auxiliary fireman.

Museum Seeks Old Fire Engines

There are not many collections of ancient fire engines in existence in this country. One of the few is the "Old Fire Engine Shop" 619 S. Main street, Manchester, N. H., whose proprietor and curator is J. M. Filleul.

The collection, which now has 26 pieces, including 8 old steamers and 11 hand pumpers, is not for sale. It is intended as a memorial to the fire service.

Mr. Filleul is erecting a special building to house these and other incunabula, and solicits the aid of this Journal in expanding the collection. What are desired, particularly, are steam fire engines; hand engine; Babcock & Holloway chemical engine; 4-wheel hose reel; horse or hand-drawn gasoline pumper, or very old motorized fire apparatus.

The relics will be restored to good condition, as "a living memorial" according to Mr. Filleul.

Telephone False Alarms Plague Paris Firefighters

It is disclosed by the report of 1950 operations of the Paris, France, Fire Regiment, commanded by Col. Maurice Feger, that of the total number of calls to which the brigade responded—25,691 in all—3,835 were for fires, while 3,826 were for false alarms, of which 1,819 were tabulated as malicious false alarms. Of the latter, 1,255 were transmitted by telephone, 548 by street alarm and 16 by other means.

Percentages of false alarms were reported as: telephones 67.3; street fire alarm 30.

It would appear that to Parisian fire fighters, as in the case of their brother firemen in other lands, the telephone is not only unreliable as an instrument of fire service communications but it can be, and is, a means of false calls.

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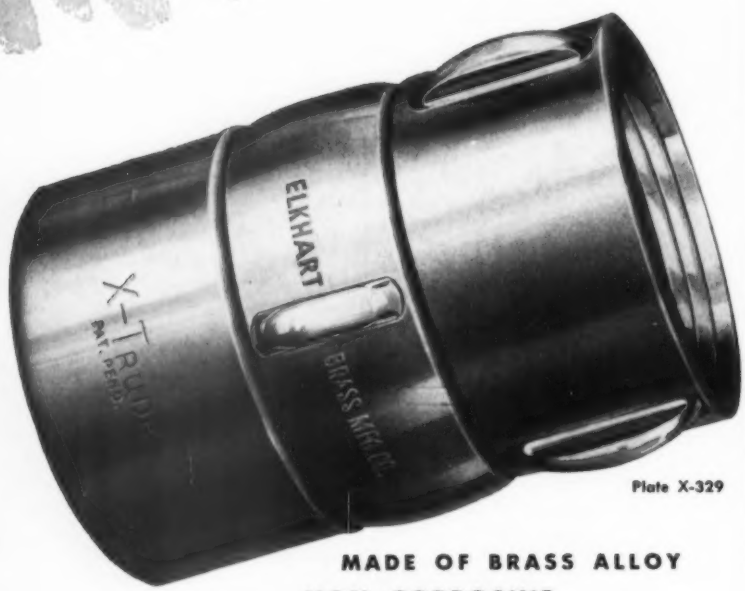

Plate X-329

MADE OF BRASS ALLOY
NON-CORROSIVE

Here is the real practical answer to the Fire Chief's challenge for lighter weight with greater strength. The metal used in Elkhart's X-TRUDE coupling is a special non-corrosive Brass alloy. Processed by extrusion, instead of casting, gives more strength and insures greater accuracy in machining. *Elkhart's X-TRUDE coupling—as light as aluminum—but made of brass . . . half the weight and twice the strength of brass couplings in service today.*

Available in 2½" (three lug type) and 1½" (two lug type) Double Jacket Fire Hose Sizes.

Write for Descriptive Literature.

ELKHART BRASS MFG. CO., INC.
ELKHART, INDIANA

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QUAKER MUNICIPAL FIRE HOSE

Send for tips on how to get the most out of fire hose.

Write for Bulletin 64-F.

STRONGER because of "pressure proof," extra-tough jackets that resist heat, abrasion, abuse . . . specially compounded tubes that are non-acid forming, won't dry out or become brittle and crack.

EASIER FOLDING qualities as a result of new standards of design and construction . . . providing greater flexibility, flatter folding, more compact storage, easier handling. Visual proof of Quaker's easy-fold construction is illustrated above.

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DIVISION OF H. K. PORTER COMPANY, INC.
PHILADELPHIA 24, PENNA., BRANCHES IN PRINCIPAL CITIES

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FOR ALL MUNICIPAL PROTECTION

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Washakie County, rural fire district of Wyoming, like so many other communities, chooses an FWD fire truck because of the added safety and protection it offers. Here's Washakie County's new FWD Model FR-50T which is equipped as follows: 500 gal. booster tank, 2 hose reels with 150' of ¾" hose on each. Divided hose compartments accommodate 800' of 2½" hose and 500' of 1½" hose. Hard Suction hose: two 10' x 4" and two 10' x 2½" sections. Pump is FWD 3-stage centrifugal, series-parallel. Capacity 500 gpm, 150 lbs. pressure.

Choose the Added Protection of Extra-Traction to Protect Your Community

Traffic experts know that FWD four-wheel-drive traction means less time on the run *and far less danger for crews, equipment and other vehicles.* Equally important—FWD engineering also delivers extra action and dependability at the blaze. Write for full facts on this exclusive combination of advantages.

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Start faster. Positive control permits greater speed. Avoid collisions because 4-wheel-drive assures superior steering.

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Get through to water supply in hard-to-reach sections. Drive over terrain that stops the conventional fire truck.

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With front wheels pulling and back wheels pushing —drive swiftly, safely over icy or snow-blocked streets and roads.

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Drive hub deep through sand or mud. Pull up steep, slippery grades without losing speed. Save precious minutes.

Built by the Makers of America's Foremost Heavy-Duty Trucks

THE FOUR WHEEL DRIVE AUTO CO., CLINTONVILLE, WIS., *Canadian Factory:* KITCHENER, ONT.